# Smallholder agriculture and global production networks – challenges for the Romanian peasantry in the globalized agri-food industry

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*„The inability to imagine a world in which things are different is evidence only of a poor imagination, not of the impossibility of change." (Rutger Bregmann)*

# Danksagung

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Anmerkungen:

(i) Für eine bessere Lesbarkeit wird in der vorliegenden Arbeit auf geschlechtersensible Sprache verzichtet.

(ii) Die Formatierung der Literaturverzeichnisse jener Kapitel, die Artikel enthalten, richten sich nach den Anforderungen der jeweiligen Zeitschrift, in der der Beitrag veröffentlicht wurde (oder voraussichtlich wird), und wurden so beibehalten. Die Literaturverzeichnisse der anderen Kapitel sind davon leicht abweichend, jedoch in sich einheitlich formatiert. Die Zitierweise in der Arbeit wurde vereinheitlicht, Abbildungen (figures) und Grafiken (tables) wurden im Rahmen der gesamten Dissertation einheitlich durchnummeriert.

# Content

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# 1 Introduction: Smallholders in the globalized agri-food-industry

The production and distribution of food have always been key topics on political as well as scientific agendas. Since farming and food supply are no longer predominantly organized locally and food production is controlled by leading global firms, peasants are often perceived as a footnote in the global food production system. This fallacy is a result of the global food system being described mostly from a western-centric perspective as well as an economic focus on globally acting companies that control the biggest part of food supply networks. However, the numbers presented by the FAO (2014) and by the seminal work of Graeub et al., (2016) prove, that over 80% of the global food production starts in family farms.

Peasants, generally defined as smallholders working less than 2 hectares of land, have been perceived as contributing to the global hunger problem as they did not progress with the general development of the industrialization of agriculture and the connected higher productivity per working hour. Yet, while they were seen as part of the problem since the early 2010s (Ricciardi et al., 2018), recently published studies suggest, that smallholders are a part of the solution to a sustainable future with regards to secure livelihoods and nutrition, as well as environmental and socio-economic development (Fanzo, 2017; Graeub et al., 2016; Ricciardi et al., 2018). Thus, the perception of smallholder farming in policy debates has shifted. Smallholders are now perceived as part of the solution to both world hunger and environmental concerns about pollination, biodiversity loss, and conservation of crop diversity (Altieri, 2008; Horrigan et al., 2002; Conway, 2011; HLPE 2013). At the same time, major producers of global food are now considered food insecure (IFAD & UNEP, 2013; Ricciardi et al., 2018).

Conversely, in the minds of consumers in the global North, the brands of lead firms like Nestlé, Unilever and other big players still have more presence than the image of farms, on which food is produced in the first place. This decoupling of consumer from producers is an outcome of globalization, and thus create bigger territorial and cognitive distances between producers and consumers within food-markets (Altieri, 2018). However, the actual globalization in the food retail market started only at the end of the 1990s with a large time gap compared to the production processes (Wrigley, 2003; Coe, 2004). While

the outsourcing of agricultural production already intensified with the post-world war II development, the retail sector was not consolidated because of missing free trade agreements and sensitivity of consumer markets (van der Ploeg, 2010a; Dicken, 2011; Appel, 2014). Since the first free trade agreement within the European Union, European food retailers started to grow their businesses and became multinational companies, mainly overtaking and fusing with eastern European, Asian and South American food retail companies (Coe, 2004; Dicken, 2011; Wrigley, 2003).

The farming landscape itself started to shift its appearance in industrialized countries since the beginning of industrialization. The food production and distribution market also appears in a new form from then which is marked by three main characteristics (van der Ploeg, 2010a). Firstly, the constantly increasing industrialization of agriculture, which is marked by the consolidation of land and the use of bigger machinery, is growing in its importance for agriculture through the constantly rising degree of technologization (McMichael, 1994; Dicken, 2011). This process entails a disconnection of consumers from locality, farming, and nature. Natural growth factors such as ecological capital gained from climate, soils and fertilizing insects are also continuously replaced by external inputs, such as financial and technological capital. This process triggered an intrinsic economic motivation to scale up production, as economies of scale with higher technologization, thus less human capital and a higher degree of ecological factors, which are replaceable are dominating the modern farming era (van der Ploeg, 2010a, b; Altieri, 2018).

Secondly, a quasi-open world market for food commodities, which is no longer highly regulated by the national state but rather by global free trade agreements and large, capitalistic actors who are dominating the production, processing, marketing, and retail of food commodities, emerged. This process led to more and more powerful retail companies in the global North, who dictate prizes and govern value chains of supply all over the world (van der Ploeg, 2010a; Kaditi et al., 2006).

These dominating actors are the third main shaping process for the global food market. Before their growth into market-dominating actors, called “food empires” by van der Ploeg (2010a), commodity and value chains in the food sector were controlled by a

multitude of different actors from different positions in each of their value chains (van der Ploeg & Marsden, 2008). With their rise, a shift of power toward the globalized retailing sector occurred, pushing onto the processing industry, which consequently can transfer the high pressure into the "squeeze on agriculture" onto primary production (van der Ploeg, 2010a, b; van der Ploeg, 2014; Swinnen & Maertens, 2007; Abele & Klaus, 2003). In that regime of food production, the food empires control food retailing as well as the entire production process, including logistics, processing and sourcing of raw materials. Food empires are striving for the hegemony of actors in the global food system which has the possibility to exceed monopolistic power along the food value chain. Through the opening and liberalization of the global food market, and the almost unlimited availability of financial capital through credits, the retailing lead firms of the global North were able to take over a multitude of firms across the world (Dicken, 2011; van der Ploeg, 2010a; Coe & Yeung; 2015).

These processes reinforced the power of food empires which used to be single lead firms before, and, thus, led to their control of crucial linkages within, but especially between, different markets of food and food production commodities (Appel, 2014). Those firms are well known global actors such as Nestlé, Unilever, Bayer, and Danone, which rely on global supply and have immense bargaining power over their suppliers. They can dictate ways of production, prices and delivery conditions with considerable power. Through this process, food producers at all levels, as well as consumers, barely have an option to buy necessary products for production or consumption without consuming products from one of these actors (ETC Group, 2008). With this huge amount of power at the hand, food empires can to control the linkages between smallholders, family farms and industrial farming enterprises and food processors as well as consumers, and, thus, partly replace the "invisible hand of the market" as a force of equilibrium between rich and poor. Recent reports by political institutions and multiple scientific papers, however, suggest that smallholders have a crucial role in the global food system and will continue to do so (FAO, 2014; Ricciardi et al., 2018; Graeub et al., 2016). Facing the current situation in the world market of agricultural food production, this thesis sheds light on the production networks in which Romanian smallholders from the Carpathian Mountains are entangled and shows ways in which smallholder agriculture in Eastern Europe can be fostered and

developed, in order to be a part of the solution to the aforementioned question of world nutrition and environmental concerns.

## 1.1 Social relevance of the thesis

As recent research showed, the social relevance and importance of smallholders in the world are highly underestimated. Family farmers are producing around 50% to 85% of global food, with numbers differing from study to study (FAO 2014, Graeub et al., 2016). There is, however, unity in studies with regards to peasants representing around 98% of all farms, which makes them the core of the production of the global food supply. At the same time, they only produce on around 53% of the world's agricultural land. Numbers on these matters, however, differ from report to report. The social relevance of peasants, the main actors in production networks which guarantee the nutrition of over 50% of humanity, is, however, a widely underestimated topic and as smallholders are declining in numbers in the global North, research is often focused on developing countries in Asia, South America and Africa (Altieri, 2018; Graeub et al., 2016; Suess-Reyes & Fuetsch, 2016).

In this study, on the contrary, the focus lies on the Carpathian Mountains in Romania, a country which is affected by land grabbing and politically supported processes of consolidation of smallholder plots (Bouniol, 2013; Roger, 2014). These developments hamper the economic viability and thus endanger the existence of smallholder farming communities while fostering industrial large-scale farming systems. With over 3.5 million smallholdings, the social impact of a loss of smallholder farming in Romania would be immense (Feher et al., 2017). Moreover, the social component in rural communities is defined by former times in post-socialistic countries such as Romania. Through denunciation, compulsory charges, and forced cooperatives, the social component is very different from studies focussed on other parts of the world, as social pressures resulting from previous socialistic dictatorships still affects the social constructs in rural areas today. Furthermore, the command economy and dispossession of the rural population still has a multitude of consequences on today's rural Romanian society (Popescu et al., 2017; Griffiths et al., 2013). The additional interest from a social point of view, lies in the long-term social benefits of traditional farming systems, smallholder agriculture and

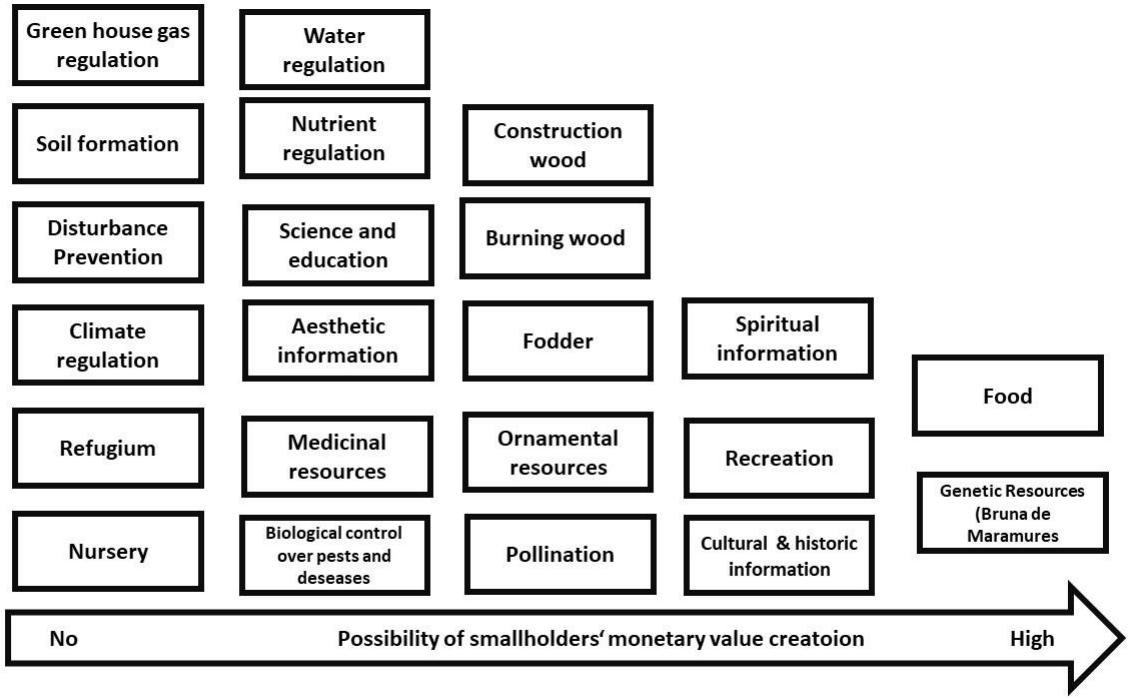
integrated farming systems in the research area, which are examined in this study (Hartel et al., 2016; Hartel et al., 2014).

These benefits include issues of gender equality, education, and economic independence as well as the inclusion of the elderly in the aging rural society, ongoing urbanization and rural exodus. Moreover, topics of rural employment through job creation and self-employment in peasant farming as well as the pure size of that group in the Romanian and the global population makes detailed research on smallholders and their livelihoods in different parts of the world a relevant topic (van der Ploeg, 2010a; Graeub et al, 2016; Altieri, 2018). Furthermore, the convergence within the European Union and its agricultural policy and development are touched upon within this work when dealing with subsidy design, policy measures and law enforcement on regional, national and international levels. While multiple studies are describing the consequences of smallholder farming on a national level, using quantitative methods, the small-scale consequences of the development of smallholder farming in post-socialist countries are rarely scientifically documented (Hartel et al., 2016). Thus, this thesis aims to reach a better understanding of the local social relevance of smallholder farming using a case study from rural Romania.

## 1.2 Relevance of smallholders for eco-system services

As reported in a multitude of studies (Hartel, 2018; Hartel et al., 2014; Torralba et al., 2016; Torralba et al., 2017; Bogdan et al., 2016), cultivated silvopastoral systems in agriculture deliver plenty of ecosystem services on a local and global level. As shown in figure 1, ecosystem services from integrated silvopastoral systems are highly important even though they are not always rewarded through economic value creation (VC).

*Figure 1: Ecosystem Services from silvopastoral systems in the Romanian Carpathians*




*Author's own elaboration*

The silvopastoral systems are a source of food for humans and animals and also are a biosphere for rare genetic resources that have been traditionally farmed there, such as the cattle breed "Bruna de Maramures". Furthermore, the systems provide room for human recreation and tourism and entail plenty of cultural and historic information in the form of arts, architecture, farming systems and livelihoods. Besides, they form the landscape in a manner, that invites tourists and entails aesthetic values for the inhabitants as well as visitors (Hartel, 2018). These ecosystem services provided by the traditionally grown silvopastoral systems in the Romanian Carpathians with its smallholdings and patches of woodland, forest, meadow and mixed agroforestry systems are also enabling farmers to generate economic value and to partly capture it.

Nevertheless, multiple ecosystem services with lower economic value are also generated through the management of these holdings. The systems help to regulate water flows through vegetation and irrigation (Bogdan et al., 2016). Moreover, nutrient regulation is seen as one of the positive ecosystem services, smallholder farming can fulfill. Further, working the land and the radicular system fosters soil formation, gas regulation through carbon storage in plants and trees and providing a habitat for high biodiversity through

the many different crops, plants and animals kept on a farm. This biodiversity includes a variety of pollinators that can live in these systems in a prospering symbiosis. Further, ornamental resources such as by-products from animal farming, amber and wood are provided in these systems. The systems also have a traditional resistance to pests and diseases as they are so diverse and thus, ecologically resilient (Fagerholm et al., 2016; Nair et al., 2009; Plieninger et al., 2015).

Lastly, local ecosystem services, such as the provision of a place for science on integrated agriculture and smallholder farming as well as on almost untouched ecosystems, are provided. Moreover, places for education about the environment could be created, for example, medicinal plants are harvestable, and the woody meadows serve as nursery and refugium for a large variety of species. Furthermore, the systems contribute to the local and global climate regulation and disturbance prevention (Hartel, 2018; Hartel et al., 2014). The understanding of smallholder-integrating production networks is ecologically important because a variety and multitude of ecosystem services are provided through silvopastoral systems, as examined in this study. The importance stems from two perspectives. Firstly, supranational and national institutions, as well as many researchers and NGOs, are fostering integrated smallholder agriculture. Thus, a question around the local impact of that fostering arises. Secondly, smallholder structures and their directly connected ecosystem services are declining on a European level as a result of the economic viability of smallholder agriculture and a lack of farm succession being missed. Consequently, an objective of this thesis is to contribute to the conservation of ecosystem services, which deliver agriculture, through an understanding of the complex production networks in which smallholders are entangled and the reasoning and consequences of (no) succession on these holdings.

## 1.3 Scientific relevance of the thesis

As reported by Graeuber et al., 2016, the scientific density of reports dealing with smallholder and peasant farming and their contribution to global food security is “surprisingly poor” (p. 1). As mentioned in section 1.1, the numbers in smallholder productivity, employment rates, living standards, and key economic figures, vary immensely, depending on the published studies. Furthermore, economic data can be

expected to be substantially ‘fuzzy’ as the biggest parts of economic activities in peasant farming takes place away from regulated markets and statistically documented transactions (von Oppenkowski et al., 2019). With plenty of bartering, informal business, traditional land rights, and similar traditionally working systems, the smallholder economy is something cannot easily be understood and analysed through using quantitative methods based on official statistics. While these statistics surely help to understand and map trends and developments in smallholder agriculture, there is also a need for a qualitative approach to gain an in-depth understanding of the underlying processes of decision-making and the local consequences of global changes and traditions which still play a central role in today’s peasant societies and economies. Thus, the qualitative approach of adding informal markets, and a new understanding of the embeddedness concept, to the discussion of global production networks will enhance the scientific agenda on smallholder farming from a socio-economic point of view and help theorize empirically found trends in peasant agriculture.

# 2 Theory – global production networks, farm succession and sustainable rural development

The framework of sustainable rural development (SRD) builds a scientifically, socially and politically aspired path of development and was theorized and empirically backed by many scientific studies (FAO, 2017; Kitchen & Marsden, 2009; Marsden, 2009; Scoones, 2009; van der Ploeg et al., 2000). Aspiration for sustainable rural development is widely believed to be a possible long-term solution for global nutrition which does not negatively impact ecosystems and rural livelihoods. Within the European Union, this path is fostered by the EU itself, as well as by each participating national state. While the concept is commonly accepted as future-oriented and socially and ecologically sustainable, it is a very broad theoretical concept. Thus, it needs more underlying theoretical thoughts to better understand the economic processes in smallholder agriculture. This thesis deals with the concept of embeddedness in smallholder agriculture and the behaviour of peasants in current socio-economic situations while having SRD as the broader framework. Thus, two theoretical constructs function as informing add-ons to minimize the fuzziness of the SRD framework.

Firstly, the concept of value chains and global production networks will help to explain the role of different stakeholders in the production network of smallholders (Henderson et al., 2002; Coe & Yeung, 2015; Gereffi, Humphrey & Sturgeon, 2005). Within this theoretical construct, the notion of embeddedness and its connection to informal markets, short food supply chains, and traditional land rights shall be further explored, defined and reified for use in the context of smallholder farming (Hess, 2004, 2008; Hess & Coe, 2006). Secondly, the idea of a resource-based view (Mahoney & Pandian, 1992) is added in order to explain driving forces of farm succession in smallholder farming. Finally, the two concepts will be pulled together to help understand the current development in Romanian peasant farming, its connection to global markets and its implications for sustainable rural development.

## 2.1 Sustainable rural development

The concept of sustainable rural development (SRD) entered scientific discourse in the late 1990s (van der Ploeg et al., 2000; Marsden, 2003). The concept served as a

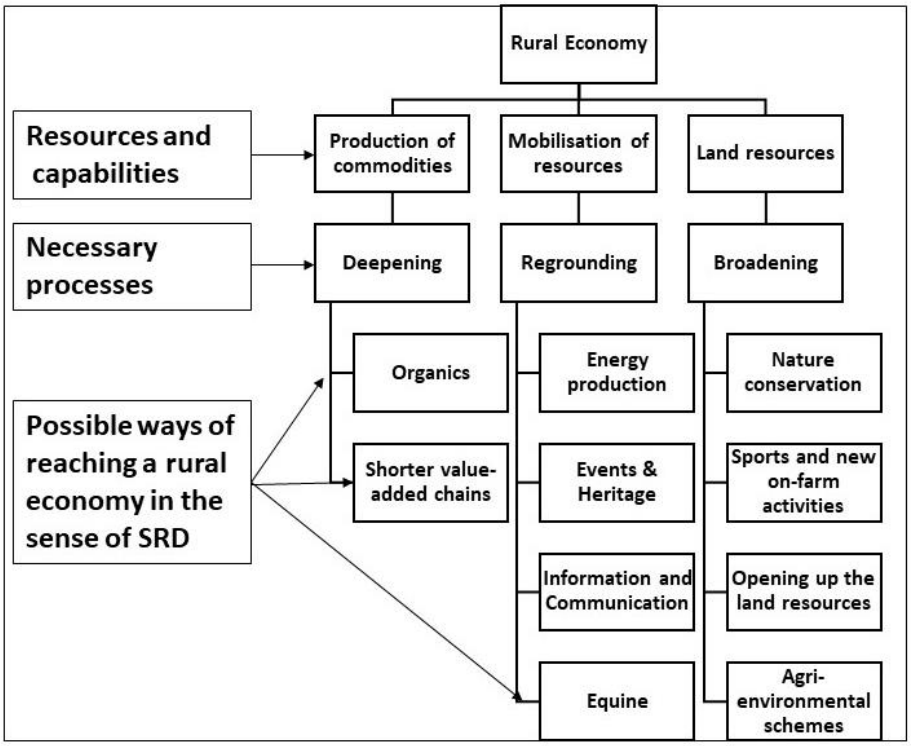
counterpart to the paradigm of post-world-war II development of agriculture which was marked by intensification, industrialization, economies of scale, specialisation and higher productivity per working hour. Thus, capital replaced multiple other resources, formerly necessary for successful and economic viable agriculture in a society which consisted a vast majority of people living off subsistence farming (Kemp, 2013). With the rapid change of the needs from agriculture within the Western society, awareness of non-importable and non-capturable values generated in agriculture, such as ecosystem services, beautiful landscapes, habitat functions for higher biodiversity and other public goods, rose and led the way to sustainable rural development (Gómez-Baggethun et al., 2010). A need for a new paradigm arose from the declining prices of agricultural products, through consolidation of market power in the retailing sector, followed by the processing, and finally, the agricultural production sector, accompanied by the manifold negative effects of industrial agricultural production, (Marsden & Sonnino 2008; van der Ploeg et al., 2000; Bézak & Mitchley, 2014).

The negative side-effects of rural emigration to rural exodus, declining biodiversity, ageing rural populations and a shift of primary agricultural production as well as connected deficits in education, food-security and financial welfare became the increasing focus of public and scientific agendas in the 2000s and 2010s. Thus, the need for sustainable rural development with its regional characteristics and understanding is an ongoing process in scientific and public debates (Berry et al., 2012). In this regard, it must be clear that the aim of scientifically discussing SRD is to create an ideal route of development and to empirically outline problems, weaknesses, opportunities, and strengths, usually attached to a certain geographical or market-oriented scope (van der Ploeg et al., 2000).

In general, SRD entails a new developmental model for the agricultural sector as agriculture inherently is one of the main parts of rural life, as a counterpart to urban life. This model is not only focused on farming activities but also includes all actors concerned with rurality and rural development as figure 2 shows. It no longer consists only of mass production in specialized fields of agriculture but entails many other entrepreneurial fields. This is depicted in figure 2 which shows that tourism, sports, other on-farm

activities, nature conservation, and agri-environmental schemes come into focus while broadening the set of rural value-generating activities into so-called rural pluriactivity (Lasanta et al. 2017). Moreover, short food supply chains, as further discussed in section 2.3.3 and the organic movement are part of the new rural eco-economy, in the sense of SRD (Glover, 2013). A re-grounding takes place through the rising importance of non-carbon-based energy production, a stronger connection between people and the rural countryside, a re-strengthening of the agricultural heritage, and new forms of information and communication technologies used on farms (Kitchen & Marsden, 2009).

*Figure 2: Dynamics of rural development at the enterprise level*




*Adapted from van der Ploeg et al. (2002)*

SRD and its implications became a key concept and theorem which is used in studies on rural development and environmental concerns, since the rise of these catch phrases in politics and environmental and agricultural science (Berry et al., 2012). Consequently, SRD has also been integrated into the Sustainable Development Goals of the United Nations and other national, supranational and regional development goals. Family and (semi-) subsistence farms, which are the ones hit hardest by the 'squeeze on agriculture',

are often more focussed when their policy measures derive from striving for SRD. As smallholders are by far the biggest group of actors involved in rural development, they are also perceived as a main group of stakeholders pursuing SRD. Consequently, this thesis follows the ideas of SRD by applying its ideas to analysing the production networks and food systems of dairy-specialized peasants in the rural areas of Transylvania, Romania.

## 2.2 Sustainable territorial food systems

Sustainable food systems are a central part of SRD, as most of the agriculture, and, thus, also of food production which takes place in rural areas. A sustainable food system can be defined as "a food system that ensures food security and nutrition for all so as not to jeopardize the economic, social and environmental conditions for future generations" (FAO, 2017, p. 62). These food systems not only consist of the agricultural production stage but also include all surrounding processes such as socio-economic, political and environmental factors and stakeholders. While food products are in general the result of long supply chains, only 10-15% of the final value of a product return to the family farmers who are the starting point of production, logistics, processing, marketing and retailing (MANA FAO, 2016). Thus, there is a need for a more precise definition of a system, which enables smallholders not being de-territorialized through the massive outflow of value along the supply chain. Instead, the system needs to provide food security on the one hand, and the creation of wealth and income on the other while not harming the future chances of performing in the same manner (van der Ploeg et al., 2002; Galli & Brunori, 2013).

This future-oriented approach contradicts the trend of the last 60 years of agricultural development that supply concentrated and specialized global food systems, which are sliced-up, processing- and marketing-coined production networks (Renting et al., 2003; Migliore et al. 2015). Thus, the approach of territorial food systems helps to better understand which kind of food systems and underlying production networks are viable options of SRD. As Rastoin (2015, p.12) puts it, territorial food systems are "a set of agri-food sectors in accordance with sustainable development criteria, which are located in a regional geographical area and organized by territorial governance". That definition shall

serve this thesis as a way to underline the complexity of food production networks with their starting points in peasant farming. There are multiple dimensions to be considered when analysing food systems and the connected production networks, starting with the social dimension.

The social dimension entails producing food to respond to consumer needs of the highest possible quality (Migliore et al., 2015). Further, the geographical dimension includes supply within the nearest proximity as well as supply to cities that are not able to produce enough food for themselves (FAO, 2017). The third dimension is an ethical duty to include family farming and small- and medium-sized enterprises while keeping traditions alive and supplying short food supply chains with an improved value distribution and proper management of environmental and natural resources. The third dimension also includes the reduction of cultural and environmental losses along the whole supply chain (Rastoin, 2015; Marsden 2009; Marsden et al., 2003).

As this thesis is committed to a better understanding of the production networks of smallholder dairy production while using socio-economic tools of analysis, the theoretical concept of global production networks will be a usable base and shall be explained in the next paragraph as well as in the theoretical parts of sections four and five (Henderson et al., 2002). Furthermore, the concept of embeddedness, to better understand the social and political surroundings impacting the rural economy, will be a central level of analysis in this thesis (Hess 2006; Hess & Coe 2004). Moreover, short food supply chains (SFSC) are a main concept, inherent to the rural family economy, as they shift value capturing towards families, while lower costs and price increases can be realized by the food producers and will consequently be a further core theoretical concept of this thesis (Renting, Marsden, & Banks, 2003). Finally, value-based decision making about farm succession is a central issue in SRD and the question of the future of the land which is why the resource-based view (RBV) will be used to better understand the decision-making about potential farm succession (Mahoney & Pandian, 1992).

## 2.3 Global production networks in the agri-food industry

As production processes, since the 1960s, became more and more divided and multinational, through new ways of labour division, they started to stretch out globally

(Gereffi & Lee, 2012). To explain these segmented supply chains and analyse the underlying processes, the approaches of production networks and value chains offer valuable instruments (Coe et al., 2008; Gereffi, Humphrey, & Sturgeon, 2005; Henderson et al., 2002; Lee et al., 2012). As the name implies, global is the largest dimension of analysis that the theories are applicable to. However, as multiple authors concluded, the framework of global production networks (GPN) can also be used for regional processes, which are in today's globalized world connected to globally happening processes (Coe et al., 2004; Henderson et al., 2002). Thus, to not only observe and analyse the economic behaviour in smallholder value chains through the lens of sustainable rural development but also the lens of single actors within agricultural production networks, the concept of global production networks (GPN) will serve as an add-on to this thesis.

The GPN approach, which strives to explain economic behaviour along value chains, also stems from discussions about Global Value Chains (GVC) and Global Commodity Chains (GCC). These two chain approaches have been widely criticized for their inherent hierarchal lens and the linearity which is used to analyse value creation. Further, their focus on transnational lead firms and the neglection of relevant socio-economic, political and institutional frames has been a focus of criticism. Finally, multiple, relevant groups of actors such as non-governmental organizations (NGOs) have been disregarded in big parts of the GCC and GVC discussions (Henderson et al., 2002; Hess & Coe, 2004).

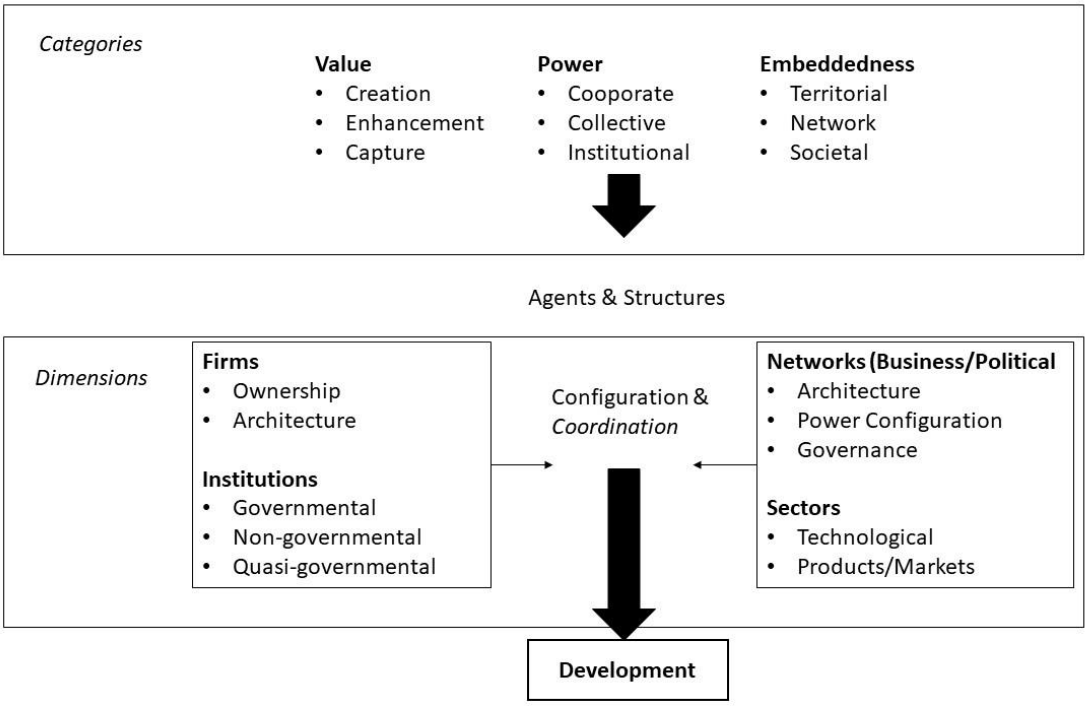
The idea of the GPN approach, to fully grasp the structures and development of production networks, grounds on the idea of figure 3. As figure 3 shows, the three analysed categories for production networks are value, power, and embeddedness. The questions of who creates value, who enhances it, and who captures thereby, is most important (Henderson et al., 2002). The idea of power, which can be exercised in different forms within a production network, is as important and determines who can capture the most value. Furthermore, the concept of embeddedness is the main category in the analysis of production networks. The three initial notions of embeddedness were territorial embeddedness, network embeddedness, and societal embeddedness and will further be explained in section 2.3.3. The GPN approach was, in recent discussions, often criticized for the fuzziness of that concept (Coe & Yeung, 2015; Yeung, 2016). That is why

this thesis will at a later stage add-on to the deeper understanding of embeddedness as an analysis category for economic processes in production networks, including subsistence and semi-subsistence farms. Those three defining categories for stakeholders within their production networks, ‘value’, ‘power’, and ‘embeddedness’, are however analysed in multiple dimensions. Firms with their own unique architecture and institutions can be governmental or non-governmental as acting agents within the networks. Furthermore, the surrounding structures of political and business-networks with their architecture, their possibility to exercise power on markets and actors and their own configurations of governance are dimensions of analysis. Lastly, technologies, products, and markets are also analysed in the categories of power, value, and embeddedness. The questions that are thus posed and examined in the underlying processes and chains of interactions are:

- Which value has a certain dimension, who creates and enhances it and who can capture it to which degree?
- Which configuration of actors explains this distribution of value-connected processes?
- Which power is exercised from certain agents or structures toward other stakeholders in the production network? Is that power corporate, collective or institutional?
- How does this power translate into relations between different stakeholders or stakeholder groups?
- Which structures and actors are embedded in their territorial, societal and network surroundings?

And finally, the question, ‘to which development is this complex network of interactions leading, and which wheels can be turned from an actor-focussed lens to foster a certain development (Henderson et al., 2002)?

*Figure 3: The architecture of global production networks*




*Source: Henderson et al., 2002; p. 448*

### 2.3.1 Embeddedness in smallholder farming

Embeddedness is one of the main categories in the theory of GPNs. In smallholder agriculture, where value-creating and adding activities are scarce, capturing of value is more and more the capability of globally sourcing intermediaries and power can mainly be manifested through large-scale cooperation, the embedding of distribution channels, single smallholders within the network of smallholders, their territorial neighbours, local and national politics, and social surroundings is expected to be extraordinary important (Lee & Gereffi, 2012; von Oppenkowski et al., 2019). Thus, it needs to be more specifically defined to inform this thesis.

Embeddedness shall serve as a tool of analysis to better understand which social and political mechanisms push or hinder smallholders in their economic decision making and to develop their business in one or the other direction. However, embeddedness was often widely criticized, because of its generality and fuzziness, as a concept to explain everything happening around clear economic power inequalities and questions of value generation, capture and enhancement within global production networks. Thus, it shall be more clearly defined in this section. The three types of embeddedness are societal,

network and territorial embeddedness. Societal embeddedness is the perception that is gained by stakeholders through their personal and collective history. The concept stays dynamic as it changes with joining of information from stakeholder to stakeholder, each with their individual personal and institutional backgrounds. Thus, in the theory of GPNs, it represents the national, regional, local and personal culture of its stakeholders (Hess, 2004; Hess & Coe, 2006; Rainnie et al., 2011).

In the setting of agriculture, that includes traditional distribution channels, cooperatives and associations, the mutual perception of policymakers, consumers and other stakeholders, farming concepts, rural livelihood and patterns of consumption (Hughes et al., 2008). The dynamism in the agrarian context is exemplified through the exchange of experience and information between different generations, different farm sizes, cultures and ways of cultivation. The second form, network embeddedness, describes the quality of interaction of stakeholders, who influence each other. In the agrarian context, that includes, for example, trades, information exchange, and machinery lending between farmers. It also implies the relation towards day workers, suppliers, and buyers. Moreover, especially important in post-socialist countries, it includes the relation towards local authorities and policymakers on the local level. The special importance arises from the resentment of farmers towards policy, dating back to socialist times, as well as the informality and corruption still in place on the local level of authorities and policy making (Bowen, 2010; Roger, 2014; Boboc et al., 2017; Hanspach et al., 2014). These coherences highlight once more the vertical as well as the horizontal dimension of network embeddedness, because a good connection to suppliers and buyers, to the institutional surroundings as well as to eventual cooperatives or other farmers is crucial for a good standing within the production network (Henderson et al., 2002; Hess, 2004; Sonnino & Marsden, 2005).

Finally, the notion of territorial embeddedness is highly important in the agrarian context as it describes the quality of the connection between actors and entities in the territorial scope of their actions (Coe & Yeung, 2015). The strong connection between land and farmer families, with generational ownership and heritage, long-term strategies of land use, are inherent to traditional agriculture and thus result in localized manifestations

(Hess, 2004; van der Ploeg, 2008; van der Ploeg, 2014). Consequently, territorial embeddedness evolves over a long time period and influences the creation of certain tastes and ways of production connected to a region. If that connection is unclear to customers, peasants can generally not access niche markets. Instead, cheaper industrial products with a stable quality dominate (Bowen, 2010; Roger, 2014). Moreover, land rights, which are traditionally fixed and steadily repeating transactions between stakeholders, are examples for territorial embeddedness (von Oppenkowski et al., 2019).

### 2.3.2 Bargaining power in the dairy industry

As described in 2.3, bargaining power is one of the main categories in which production networks are analysed when the peasant farms observed in this thesis have raw milk as their main marketed produce. The power between different stakeholders determines which goods of which quality are sold at which price, under certain circumstances. In general, the more power an actor in the vertical dimension has towards their suppliers/buyers, the better he can capture monetary value from transactions within the production network (Henderson et al., 2002).

In the globalized food industry lead firms, which are globally acting retailers and processors, govern their value chains top-down (Coe et al., 2008; Dolan & Humphrey, 2000, 2004). At the same time, the suppliers of their production networks must try to meet quality and quantity standards imposed by the consumers and passed along by the lead firms. If they succeed in doing so and gain a certain degree of irreplaceability, their bargaining power consequently rises (Douphrate et al., 2013, Reardon et al., 2009).

Producer-driven chains are connected to technology-, skill- and capital-intensive industries, as empirical works showed. At the same time, buyer-driven chains are the ones with goods of low complexity that are widely available. Thus, also the chains derived from family farming with dairy specialization are expected to be buyer-driven (Lee et al., 2012). The retail sector governs the production networks through their power surplus over dairies, using their strong brand names to dictate prices and quality standards. The dairy sector was strongly consolidated in to withstand the pressure of meeting hygiene, price and quality standards. This consolidation resulted in further squeeze on agriculture as the threefold pressure was further transferred to the producers of raw milk (Dolan &

Humphrey, 2000; Dolan & Humphrey, 2004; Gereffi et al., 2005; Lee et al., 2012). However, in the dairy chain, which is an agri-food chain with goods of short durability, the producers of raw milk can capture more value while being coupled to a globally acting value chain (Douphrate et al., 2013; OECD, 2016; Reardon et al., 2009). Thus, the empirically grounded theory leads to smallholders being at the intersection of global consolidated and traditional local markets. Those two forms of governance are imprinted through the earlier mentioned shift of price pressure and bargaining power (Bojnec & Fertő, 2014; Glover et al., 2014; Hammoudi et al., 2009; Lee et al., 2012).

The captive value chains of dairy products in the globalized food network are marked by strong coordination and regulation, through globally acting dairies as lead firms, and, as a result, smallholders can participate by upgrading their product quality and quantity, which in turn leads to a consolidation of land and the classic paradigm of the industrialized agriculture of economies of scale and specialization (von Oppenkowski et al., 2019). Consequently, the smallholders need to supply their raw milk in accordance with the regulations of globally acting dairies, and to prices dictated by the global milk market. Their second opportunity of market participation, traditional markets, are, on the other hand, marked by low entry barriers and governed through price decisions in arms-length relationships with minimum coordination and inputs for producers. Thus, they enable farmers to diversify their farming activities and capture more value from their produce (Gereffi et al., 2005; Gereffi & Lee, 2012; Humphrey & Schmitz, 2002; Lee et al., 2012).

The high pressure in the current form of long, global agri-food chains in the dairy industry with pressure on primary producers usually results in four possible outcomes. The first two are the upgrading of smallholder farms, which in peasant farming are mainly process and product upgrading processes. They consist, process-wise, of milking and cooling more hygienically and efficiently through a higher degree of technologization or more productive breeds (Lee et al., 2012; Gereffi & Lee, 2015) (1). Product upgrading results in the capacity, capability, and possibility to process the raw milk and valorise it. Lead firms with their influence on other actors, however, try to hamper product upgrading for their suppliers, to not lose their bargaining surplus (Giuliani et al., 2005). (2), after pasteurizing

and homogenizing, which are standard processes to obtain permission to sell the milk, the raw material might also be processed into cheeses, yoghurts, cream, milk powder or other dairy products that have added value compared to the raw product (Dellmann & Hassler, 2017; Henson & Humphrey, 2010; Humphrey & Schmitz, 2002). (3), if upgrading is not possible for the smallholders and they consequently cannot meet the pressure of large-scale retailers, which is shifted to them by intermediate dairies in the form of quality and quantity standards, the third option is exiting the globally organized production network. Instead, a downgrading process can be helpful as primary products, such as raw milk, might meet the standards of the market, while processed goods do not. This results in less market power and leaves the peasants further behind in pricing (von Oppenkowski, Hassler & Roesler, 2019). (4), the last possibility is, however, to exit the global production network and move toward local traditional markets which are organized with less strict regulations, lax liability and almost no entry barrier (Gibbon, 2003; Lee et al., 2012). As a possible outcome (2) appears to be the most appealing in the sense of SRD and territorial sustainable food systems, and short food supply chains play a substantial role in research on smallholder agriculture, the concept of short food supply chains (SFSCs) and its applicability in peasant farming will be discussed in the next section.

### 2.3.3 Short food supply chains and their role for smallholder farming

There is a multitude of coexisting definitions and descriptions of short food supply chains, which are derived from the idea of global value chains and value creation, enhancement and capture processes in agri-food networks (Kneafsey et al., 2013; Renting et al., 2003). In contrast to the existing chorus of global agri-food chains ending up in the already discussed squeeze on agriculture. Short food supply chains (SFSCs) are considered to have as few intermediaries and links as possible from on-farm production to the final consumer. A further main trade is that the goods can be fully traced back to the producer by the consumers. Thus, a certain connection of the place of origin and special qualities can be manifested and value capturing activities are spread among far fewer stakeholders (Galli & Brunori, 2013). While the literature review by Kneafsey et al. (2013) showed that many definitions and descriptions of SFSCs coexist, all of them have the following in common.

Through the concentration of physical and economic activity within a region and the goods produced for SFSCs, closely connected to organic farming practices, SFSCs create economic, environmental and social benefits within a region. The environmental benefits are often derived from farming systems which are quite traditional and ecologically sound because they are diverse and not focussed on agro-industrial monocultures (Karner et al., 2010; Renting et al., 2003). The habitat function for pollinators, other insects, birds, and small mammals, as well as the floral biodiversity functions and organic practices, are empirically connected to the low-to-no input farming methods, usually applied in systems that are focused on supplying SFSCs. Through the creation of local employment opportunities, possibilities of knowledge exchange, and supplies to local shops, processors and consumers, local stakeholders are reintegrated into food production and the production and consumption network of agri-food goods gets denser through distributing via SFSCs and through entangling the local society (Renting et al., 2003; Kneafsey et al., 2013).

Doing so, SFSCs, in contrast to long agri-food chains, contribute to keeping the created and added value with the farmers and the local stakeholders involved. This functions best through the avoidance of intermediaries and middlemen, especially with goods of high monetary value (Narrod et al., 2009). In consequence, opportunities for employment, also of younger people, can be fostered and thus, SFSCs can also help outlying areas to oppose fallow and rural exodus through an ongoing ageing population (Roep & Wiskerke, 2012). Economically, SFSCs are a contradictory concept to the paradigm of specialization and economies of scale. They are a better example of economies of scope and they enable growers to diversify their production (Duarte-Alonso, 2011; Marsden, 2009). Consequently, farmers are more likely to produce and sell products closely connected to their origin and traditional production methods, which wouldn't be marketable in long supply chains because of missing economic viability and distribution channels, low quantities and fast perishability.

The goods that are empirically connected to SFSCs are usually unprocessed or lightly processed on farms or in traditional short supply chains to keep perishability and the numbers of involved actors as low as possible (Marsden et al., 2003). While having as few

links in the chains as possible as well as a limited geographical radius of action from producer to consumer are the main characteristics of SFSCs, there are no maxima in either of these two categories (Kneafsey et al., 2013). Whether a food supply chain can be described as short or not, therefore, depends on the multiple questions of their embedding, from functioning infrastructure and logistics to population density, complexity and perishability of the products, and differ from region to region and product to product. In the case of Romanian peasantry in the Carpathian mountain, which mainly takes place in areas with a low population density aside from Cluj-Napoca, both numbers are expected to be rather low.

Consequently, only very few links and an armlength, trustworthy relation between consumer and producer, which got embedded via the exchange of food products define SFSCs in the context of the Romanian Carpathian Mountains and its smallholders. The place and way of production should be as familiar to the final consumer as the full value chain should be to the farmer and all other stakeholders directly involved in the production, processing, and distribution of the goods (Renting et al., 2003). Through this re-connection of producer and consumer, SFSCs help to re-establish the often-criticized lost connection from food-consumption to food production on the consumer's side. Consequently, customers can make their consumption decisions based on information embedded within the product such as the place of production, the people involved and their values as well as production methods (Chiffoleau, 2009). Through this high level of informational detail on the product, it gains relative scarcity in the market and might thus compete with products from globally managed agri-food chains, even though higher perishability and lower standardization and availability of the goods from SFSCs are expected (Kneafsey et al., 2008).

The market opportunities for goods that are sold via SFSCs are dependent on the kind of SFSC in place. Generally, three kinds are distinguished in literature: (1) Face-to-face chains, in which the goods are directly traded from consumer to producer and which result in maximized authenticity of the value chain. In the agri-food context, that means consequently farmgate or roadside sales, farmers markets, trust-based pick-your-own sales or farm shops. Theoretically, online shops are also a possible outlet. However, most

smallholders do not have the capacity and capability of running an online shop while pursuing ongoing farming activities. Secondly, online shops as well as roadside sales, access to farmer markets and customers finding their way to the farm are highly dependent on infrastructure such as easily accessible roads, constant web access and finally also education how to use it (Hayden & Buck, 2012; Canavan et al., 2007; Kneafsey et al., 2013).

(2), SFSCs “within spatial proximity” often end up in local specialist retailers such as butchers, restaurants, or hotels as well as public institutions like hospitals and schools. The most far-reaching distribution channels via SFSCs have a heavy impact on marketing activities through broadly known labels such as, “Protected Geographical Indication” or, “Protection of Designated Origin”. Those distribution channels can only be embedded over a longer time and thus are hardly accessible for single smallholders since investments and necessary infrastructure represent a burden to them (Kneafsey et al., 2013; Barham, 2003). (3), Spatially extended networks involve high transaction, certification and investment costs which results in relatively large businesses running them. They are threatened by a loss of the crucial authenticity and connection from producer to consumer and other main traits of SFSCs, as exemplified through former SFSCs that turned into GPNs with a strong brand-name in an agri-industrial way. An example is “Grana Padano D.O.P”, a cheese which is connected to a certain Italian region but in the meantime globally distributed and even available in discounters while primary production is completely de-territorialized and the information of consumers on the way and place of production is not accessible anymore (Barham, 2003; Parrot et al., 2003).

Thus, smallholders can realistically only participate via those chains when organizing themselves in cooperatives or other networks for schemes like customer supported agriculture such as Via Campesina or comparable locally driven food movements (Kneafsey et al., 2013; Via Campesina, 2010). As empirical studies on post-socialist agricultural societies showed this is expected to be the main barrier to accessing those channels as farmers are doubtful about cooperating with each other (Oppenkowski et al., 2019). Consequently, the economic benefits for smallholders still often result from the willingness to work long hours, value-adding activities to primary products and forms (1)

and (2) of direct marketing while working the land in extremely high land equivalent ratios and trying to diversify economic activities at high economies of scope (Duarte-Alonso, 2011; Xu et al., 2019).

The cultural and social capital within areas where production for SFSCs is performed is also gaining ground. Through keeping alive the farming traditions and cultural heritage of the country life and their communications the social-cultural identity can be kept and grown. The communication of tradition and culture might be symbolized, for example, in outstanding architecture, traditional farming methods, folkloric clothing, and processing techniques. Through the personal relation between consumers and producers and the frequently chosen way of diversifying into agro-tourism new ways of community involvement, social interaction and strengthening of relations are opened (Marsden & Sonnino, 2009; Renting et al., 2003; Tanasă, 2014). This includes the entangling of consumers into food production through personal contact, which emphasizes organically produced food, the fostering of a reconnection between health, the environment, food consumption, and animal welfare (Winter, 2003; Kneafsey et al., 2013).

When connecting the high social capability of SFSCs with economic viability and environmental thoughts; short distances of transport; high biodiversity; low inputs of chemical treatments; and low wastes and pollution one finds the framework of SFSCs fitting as a possible way to include smallholders to reach sustainable rural development, with the help of peasant farming (Arato et al., 2017; van der Ploeg & Marsden, 2008; Kneafsey et al., 2013). This holds especially true in the research area of the Romanian Carpathians, as farming activities take place on integrated farming systems with none- to low-input of chemical fertilizers and SFSCs are traditionally embedded.

Putting together the ends of SFSCs and SRD it becomes clear that short food supply chains, starting from smallholder farms, might help to foster not only economic, ecological and social, but also culturally sustainable development when economically, politically, territorially and societally embedded (Carney, 1998; van der Ploeg & Marsden, 2008; Galli & Brunori, 2013; von Oppenkowski et al., 2019). This thesis should lead to a better understanding of smallholder farming activities for a sustainable rural development which is why the political and social embeddedness of SFSCs in rural

Romania will be at the centre of research in section 4. In order to shed light on the consequences of the economic situation of smallholders, missing embeddedness of their distribution channels and the continuing pressure on peasant agriculture, the following section seeks to build a theoretical framework for understanding the question of whether smallholder business are continued within the family, or not, by using the broad lens of the resource-based view as introduced by Mahoney and Pandian (1992). Furthermore, the concept of embeddedness will be once again explanatory for the question of what happens to agricultural areas of smallholders, if they are not further worked by successors.

## 2.4 Farm succession theory – the resource-based view

Farm succession is a topic that has been widely considered in recent publications, as the meta-analysis by Suess-Reyes & Fuetsch (2016) with their screening of 53 scientific articles from between 2000-2016 shows. While their study shows that in many publications either no, or no consistent theoretical framework was used, the predominant theory used to analyse the reasons for and against farm succession is the resource-based view (RBV). The basic idea of the RBV is that certain resources help to create a competitive advantage of businesses. The resources, therefore, must be valuable, rare, inimitable and non-substitutable (Mahoney & Pandian, 1992; Sirmon et al., 2011). The better the available resource of businesses perform in these four categories, the better can a sustained competitive advantage be reached by them.

Moreover, resources are generally divided into tangible and intangible resources. Tangible resources are usually easier to replace while intangible resources are widely considered to be of high social complexity, often unique, less replaceable and thus, more important for the sustained competitive advantage of a business (Allee, 2008; Sirmon et al., 2011). This broad perspective allows the conclusion that the more value and competitive advantage a business has, the more likely it is to be overtaken by successors and, thus, to survive at the market (Suess-Reyes & Fuetsch, 2016; Barbieri, 2010; Barbieri, Mahoney, & Butler, 2008; Meert et al., 2005; Lambrecht et al., 2014). This generalist approach can also be used to describe the determinants of farm succession (Suess-Reyes & Fuetsch, 2016; Sirmon et al., 2011).

### 2.4.1 Succession in family farms

As the RBV is broadly applicable and helps to reduce complexity in the decision making of prospective farm successors it is a suitable tool for understanding push-and-pull factors of farm succession (Rau, 2014). This is especially helpful, dealing with family farming since the complexity of farm succession is enormous (Suees-Reyes & Fuetsch, 2016). In addition to the question of potential successors through age, gender, capability, and personal interest in farming, there are other multiple other factors which play a crucial role such as table 3 in section 6 shows. Human capital (e.g. extraordinary land specific, tacit knowledge, missing hireable workforce), social capital (e.g. market access, narratives of succession), survivability capital (e.g. traditional land rights, involvement of children in farm work), patient capital (e.g. degree of mechanization, accessibility of loans), and finally governance structures look different from family to family as well as from farm to farm.

These five types of resources are also considered the most important to family firm succession in general (Sirmon & Hitt, 2003; Petrů & Havlíček, 2017). As considered part of all the different "capitals" mentioned, the combination of family and business is not replicable. Moreover, this combination is at least in the eyes of potential successors unique and thus, there is a general tendency to look for and find successors within the own family. However, the quality of the family business and its resources in terms of value, rareness, inimitability, and substitutability must be as high as possible in order to maximize the chances of farm succession (Glover & Reay, 2015; Kerbler, 2012; Grubbström & Sooväli-Sepping, 2012). As this thesis does not only aim to further clarify why family farms are overtaken, but also on what happens to them when they are not overtaken within the farmer family, the RBV needs an add-on to create a framework which captures both the fate of land in terms of succession, or no succession, as well as in terms of what happens after land abandonment.

### 2.4.2 The concept of embeddedness in the context of farm succession

Embeddedness, the concept elaborated in section 2.3 and 2.3.1 is a suitable addition to the RBV. While the RBV is a framework, putting the resources of a business into the focus of observation, the embeddedness concept is actor-based and does not stop "at the

farmgate" but instead takes a multitude of actors, influencing developments of a production network, into account. This fits the question of the fate of non-succeeded agricultural land from smallholder farms. Whether the land is abandoned, kept, worked, rented out or sold is determined by many political, social and economic factors and actors. Other literature already observed that when not using a theoretical framework, assets away from monetary reasoning are the most important influence factors for that question (Grubbström & Eriksson, 2018; Howley et al., 2015; Howley et al., 2014). The influence factors can be theoretically framed, sorted and analysed using the concept of embeddedness, stemming from the discussion of global production networks (Henderson et al., 2002; Hess, 2004; Hess & Coe, 2006). As embeddedness includes a wide range of actors and factors that are influencing a production network, it shall be defined through its three main notions to overcome the criticism of a "fuzzy concept" (Rainnie et al., 2011). The already mentioned three notions need to be partly redefined and adjusted, dealing no longer with solely economic transactions between stakeholders but with the question of farm succession. Thus, this section describes, how the three aforementioned and elaborated notions of embeddedness fit the question of the fate of abandoned land.

Network embeddedness is marked through the connection of actors to each other and through their impact on each other. This includes the interaction from farmers to farmers as well as farmers to local authorities and policymakers. Moreover, the connection to customers, dayworkers and other firms describes the network embeddedness of a farming business (Hess, 2004; Hess & Coe 2006). In post-socialist countries like Romania, resentments from farmers toward politics and toward each other are of special importance, as compulsory charges and denunciation from before 1989 are still on people's minds (Bowen, 2010; Roger, 2014). In terms of farmland fate, network embeddedness is most important when land rights shall be changed at the desks of public authorities as this is expected to be an informal procedure in rural Romania, sometimes ruling over many years of traditionally and socially embedded land rights. Further, the relation toward prospect buyers, renters and successors is a main influential factor when using the idea of network and social embeddedness concept for analysing the future of non-succeeded farmland.

The second notion of embeddedness is naturally of highest importance in agriculture. Territorial embeddedness entails the deep connection of farming families to their land and their region. Further, it includes localized manifestations, such as ways of working the land and repeating informal business activities between farmers and other stakeholders. Moreover, it entails informal land rights, certain typical products and distinctive qualities which all have developed over a long period of time. (Hess, 2004; van der Ploeg, 2014; von Oppenkowski et al., 2019). In terms of farmland fate, major influence factors are the territorial binding of farmland owners as well as implicated values, which are connected to land and locals as well as local manifestations with business partners, people helping to work the land, tacit knowledge on the land and geographical and infrastructural connectivity with other plots.

The third notion which is important to mention is societal embeddedness which mainly consists of historically developed strategies, perceptions and actions of stakeholders. It is often influenced through personal, local, regional and national cultures (Hess, 2004; Hess & Coe 2006). In the agrarian context of farm succession, it might entail traditional farming practices, patterns of heritage, rural livelihood, production and consumption patterns. Moreover, it consists of the views which different stakeholder groups hold about each other. In terms of the question, What happens to land after there is no successor found?, strongly societal embedded social and patient capital are the most influential factors, even though perceptions of traditions, traditional views on each other, etc., might be shaped and changed through joining together information about different generations, farm sizes and cultures (Henderson et al., 2002; Men, 2014). To conclude, the concept of embeddedness is able to address all influential factors, from monetary to non-monetary, as well as socially, historically and culturally shaped factors, in order to observe the underlying mechanisms which influence the fate of non-succeeded land, as the case study in section 6 will show.

## 2.5 Research questions and aims of the thesis

The aim of this dissertation is to understand the situation of smallholders in emerging post-socialist countries. Peasants are increasingly connected to global production networks through the consolidation of food markets, and, as a result, the earlier

mentioned concepts of short food supply chains and global production networks will be utilized. Explicitly, the concept of embeddedness is useful to understand crucial processes, developments, and variables in the sense of sustainable rural development, while not neglecting economic trajectories through all different stakeholders in the global production networks of smallholders. For this purpose, three different perspectives are used. (1) The ecological perspective focusses on ecologically sustainable farming systems and short food supply chains which are both promoted as a part of the solution to the question of global nutrition. (2) The economic perspective on what is affecting smallholders in the ongoing political and economic development of industrialized farming and the consolidation of markets and land. (3) Through the SRD-perspective should the question be answered, what happens to land which is abandoned due to a lack of fostering of (1), and insufficient performance within (2). More specifically, the case study of dairy smallholders in Romania and their production networks will be used to exemplify underlying mechanisms of state aid under the Common Agricultural Policy of the EU, market trajectories and economic and ecologic consequences.

Based on these perspectives, the concept of embeddedness will be extended by the notion of informal markets, which is so far widely neglected in the discussion of where a disembedding from existing distribution channels, network, economic and societal structures could lead to. The categories of societal, territorial and network embeddedness and their dynamism will be used to describe that.

Further, how the farming systems are fostered through political institutions and how that support is perceived and used will be described. Finally, the consequences for the farm structure regarding farm succession, the push and pull-factors towards succession or no-succession and its consequences shall be described. To do so, the generalist approach of the RBV will be used to understand what drives the young generation to take over their parents' farm and, once more, the concept of embeddedness to will be used to analyse which mechanisms are initiated after the abandonment of farmland or the giving up of farming activities.

This work has been written in order to deepen the understanding of smallholder farming in a post-socialist country and to better understand if, and how, peasantry can be a part

of the solution of the world nutrition question in the sense of SRD. In addition, it explores which factors are influencing the development of smallholder agriculture in an emerging country like Romania. Further, it shall help the understanding of the concept of embeddedness in smallholder agriculture and add new notions of informal markets and its usability to the question of abandoned land. Thus, the concrete questions to be answered within this thesis are:

1) What role does short food supply chains play in smallholder farming and how are they politically fostered in the case of integrated farming systems?
2) How important is the embeddedness of distribution channels for smallholders and what role does the embeddedness of informal channels play?
3) What are the main determinants of farm succession in post-socialist Romania and what consequences arise on a local level in cases of missing farm succession?

# 3 Research design and methods

In this section, the used methodology will be explained and justified. It will be argued that guideline-based interviews are a viable method to assess the production networks of smallholders in the Romanian Carpathians and to get deeper insights into the situation of farm succession and the fate of abandoned land. Furthermore, the process of interviewing and dealing with the collected data will be described.

In general, two different empirical approaches were considered. The first is to use mainly quantitative data and methods to assess the production network. To get viable results with such an approach, the whole network, including factors like embeddedness, governance, and power as well as financial but also ecological benefits, must be quantified and expressed in significant numbers (De Groot et al., 2003; Fagerholm et al., 2016; Yeung, 2016). This would imply defining an index or unit, in which the different researched values can be described and compared. Moreover, aiming for more general results, rather than basing the findings on a single assessed case study, a statistically significant number of cases must be evaluated. It, however, implies, that a personal approach towards participants of the study, the possibility of asking and understanding personal, case-specific, in-depth questions and a precise and situation-wise adaptable translation of questions are not granted.

Additionally, other, differing, external influencing factors on the research results, such as temperatures, rainfall, pests and diseases of plants and animals, must be considered for evaluating the precise correlations of factors that are looked at, and this requires a long-term statistical analysis of poorly documented economic and agronomic data. In the case of smallholder farming in Romania, the quantification of all values generated and all factors which must be considered is barely possible. It would also imply research on data from a longer time period and with different external conditions, such as those mentioned before. Another aspect which contradicts the sole usage of quantitative research methods to assess the topic is, that there are not many case studies which can be evaluated and multiple informal activities, which cannot be measured quantitatively, play major roles in the performed research (von Oppenkowski et al., 2019). Furthermore, most actors are hard to contact, have no online presence, and are in general, historically

and education-wise, not connected to research and scientific language, which makes quantitative data collection more challenging. Another aspect which contradicts the usage of quantitative analysis is the strong personal binding that many landowners have to their farms. As a result, they might not always be rational in their decisions and having "the farm as their home" becomes the key driver behind their decisions, rather than purely looking at what the numbers suggest (Suess-Reyes & Fuetsch, 2016). This irrationality often requires multiple follow-up questions and presentations in order to understand what drives people to certain decisions. Consequently, using only quantitative data, for assessing the high complexity of the researched socio-economic fabric analysis, seems unsuitable, yet, using secondary statistics for backing up the qualitative data is crucial.

Therefore, for the purpose of this study, mainly qualitative research has been conducted while secondary statistical data from the European Union and the Romanian statistical office have also been used. Guideline based expert interviews were chosen to be a suitable research method for evaluating the deeper reasoning and in-depth understanding of stakeholder decisions and mapping the complexity of the multifaceted mechanisms involved (Hay, 2010). Conducting guideline-based expert interviews also enabled the research to remain flexible to new relevant aspects, at any time. This turned out to be very important, because of the relative scarcity of sources of prior qualitative data on the topic, and the processes in smallholder farming that are underlying steady change. Furthermore, multiple aspects, including global value chain governance, political decisions, Romania's political heritage, agricultural practice, cultural aspects of farm succession and education were of major importance. Recognizing knowledge and research gaps in these fields also leads to the decision to use expert-interviews in order not to miss relevant aspects in quantitative research practices. In addition, the often adapted interview guideline consistently kept the research flexible to new inputs, so that not only the expected drivers of change and decision making but also the unexpected drivers were captured within the thesis (Lamnek, 2006).

## 3.1 Qualitative expert interviews

Conducting guideline-based interviews leaves room for the adaptation of interview guidelines in the sense of grounded theory and is a common method of qualitative social research (Lamnek, 2006; Hay, 2010). Whenever a certain claim is agreed or disagreed upon by the starting number of interviewees, it can be double-checked with a different group of subsequent interview partners. After an appropriate number of cases, the claim can either be accepted or neglected and is then taken as common ground when talking to other stakeholders. While not asking about the fact anymore, but mentioning it, the interviewees still have the chance to express their opinion on the matter, while the limited time of interviews can be used to grasp new and other topics in more detail (Mey & Mruck, 2011). At the same time, if the claims are reported on in a repetitive way, and this too can be treated as valuable data for the research.

The resulting flexibility of the research design leads to the possibility of not only ask people precise questions on topics which they do not always have detailed knowledge on but also offers them the opportunity to talk about their field of expertise. Any gained data improves the guideline, which can then be checked, deepened or differentiated from interview to interview. This leads to a deeper understanding of underlying processes behind the decisions and actions of different stakeholders (Mayer, 2012). In the end, a mixture of guideline-based episodic and problem-oriented expert interviews were conducted using the definitions of Flick ([edit.] 1995, p. 349ff.). These interview guidelines were based on knowledge from earlier literature research on the topic and on the experience gained from interview to interview. Moreover, the interviews were typically a mixture of narrative impulses and half-open questions, only posing precise questions for a very high level of detail (Lamnek, 2006; Mey & Mruck, 2007). The goal was to let the stakeholders talk about topics they knew something about and not to force them to give answers to questions which they can only answer vaguely. Consequently, the interview guideline was adapted several times during the research process which led to the multiple versions of the guideline found in appendix 1a-1j.

### 3.1.1 Conception of the interview guidelines

The interviews were conducted using an adaptable guideline which consists of several subtopics (appendix 1a-j). These topics were, depending on the interviewee and the progress of research, approached in varying degrees of depth. The general approach of guided expert interviews was chosen because of experiences gained in many other studies which deal with smallholder agriculture, as well as with other actors, whose main economic transactions occur on an informal level where official data from a firm as well as on a regional level are hardly collectable. Further, initial information was gathered through interviewing farmers within the project SustainFARM from the FACCE-Surplus program of the EU, funded by the BMBF. It showed that approaching farmers with a combination of a foreign researcher and a Romanian researcher was positively perceived. As one of the researchers comes from the University of Cluj-Napoca and was born and raised in the same part of the country, where the research was conducted, an atmosphere of trust and familiarity was developed which, in turn, led to fruitful talks and interviews. Adrian Gliga, the researcher from USAMV Cluj, is very experienced with smallholder farming methods in the area and is an agronomist himself, and as a result, the research was greatly enhanced, both by his understanding of the people involved and his ability to translate between English and Romanian. This combination enhanced the interview situation itself, through professionality, security, local expertise, language, and different angles on the smallholder situation in the Romanian Carpathians.

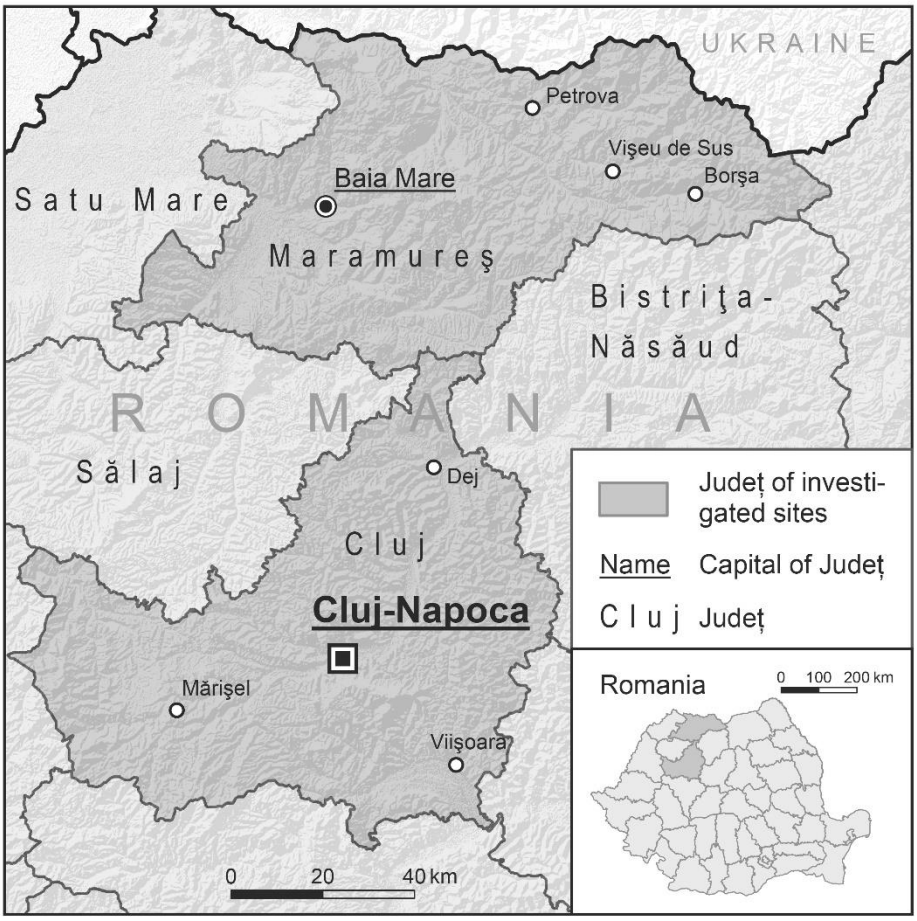
As mentioned before, the guideline was continuously adapted during the ongoing research and altered depending on the stakeholder group approached. This resulted in four different basic versions of the interview guideline, which were further developed in multiple stages, each based on the others (appendix 1a-j). Different interview guidelines have been used for different stakeholders as the appendices show. The adaptation of the guideline was, however, always incremental and, within the process of interviewing, previously disregarded questions were continuously re-evaluated (Mey and Mruck, 2011). Moreover, the focus on closed questions, which is set within the interview guidelines, was not set during the interviews, instead, interviewees were encouraged to speak on more general topics. At the same time, however, the precise questions, written down in the guidelines, functioned as anchor points within the interviews.

### 3.1.2 Choice of the interview partners

The interview partners were chosen according to the production network around smallholder production in the Romanian Carpathians. The focus was set on stakeholders involved with the wood and dairy value chains within these farming systems. In order to map the production network and the influence of embeddedness correctly, many different groups of stakeholders were approached. The first contact with smallholders in the county of Maramureș was made via the project SustainFARM as well as partner farms of USAMV Cluj. The contacts to smallholders in Cluj County resulted from contact with a locally acting NGO, working on the land rights of smallholders. Following on this, the contacts to smallholders were generated via the 'snowball principle' (Merkens, 2000).

Firstly, the choice of representatives of NGOs and banks, politicians, industrial farmers and industrial processors was made along the value chain, as described by the smallholders. Secondly, further relevant actors in the area were identified by reading local newspapers, online-portals, and reports by NGOs. After the core phase of interviews, during which 25 actors were interviewed, certain interviews were supported through detailed questions via video-calling, phone calls, and e-mail conversations. In addition, two additional interviews with representatives of NGOs were made to ensure that individual pieces of information obtained from smallholders were more prevalent in NGOs, thus bundling the interests of multiple smallholders. Overall, 29 interviews were conducted with over 40 stakeholders, as up to four generations of farmers and their spouses were present in many of the smallholder farm interviews and could thus be addressed together (Appendix 2). The interviews were conducted within the counties ("judets") of Maramureș and Cluj in different villages, which are in the mountainous areas of the Carpathians. The villages, in which interviews were led are all depicted in the map of the research area (fig. 4). It also includes the main cities of farmer markets and NGOs, Cluj-Napoca and Baia Mare.

*Figure 4: Map of the research area*




Base map data © EuroGeographics. Original product is freely available at eurogeographics.org. Terms of the licence available at https://eurogeographics.org/products-and-services/open-data/topographic-data/
Relief data: Jarvis, A., Reuter, H.I., Nelson, A. & E. Guevara (2008): Hole-filled seamless SRTM data V4, International Centre for Tropical Agriculture (CIAT). <http://srtm.csi.cgiar.org/SELECTION/inputCoord.asp> (last modified: 2008) (last accessed: 28/8/2008)

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When information on the researched topics started to repeat and overlap the questions were posed differently through a grounded theory (Mey & Mruck, 2011). When the answers repeated multiple times, from different stakeholders, they served as the starting point for new questions. Even though multiple topics which were touched on in the interviews, and were highly interesting, they were unfortunately not considered relevant for the single studies and for this thesis, so they were not researched further. However, the implications and further topics for research can be found in the conclusions of sections 4, 5 and 6 as well as in the conclusion of this thesis.

### 3.1.3 Interviews and analysis of the qualitative data

Interviews with multiple different stakeholders required several different approaches and led to a variety of interview situations. The peasant interviews were usually around

40-120 minutes and were, as suggested by Mey & Mruck (2011), conducted at farmers' work and living places. For the most part, interviews were followed by a mutual meal and the possibility for some more questions, in order to deepen understanding as well as the possibility of a more personal approach toward topics of smallholder farming. In many cases, a tour through the holding of the family was also a possibility so that specific questions and talks could arise from within that context. Usually, the interviews were led in Romanian while the aforementioned colleague, who comes from the rural Carpathians and is a scholar in agronomy at USAMV Cluj, was translating from English to Romanian and back again. This ensured mutual understanding of both, scientific and traditional wording and lowered the language barrier immensely. Several farmers could be visited a second time so that additional questions, which appeared during the process of research, could be clarified. The surroundings, however, were always familiar to the farmers and the atmosphere was described as convenient by many interviewees.

The interviews with the smaller processors (> 10 employees) took place at their factory. The operators presented their firm and machinery, and the interviews took around 120 minutes. They were also conducted in Romanian and, thus, had to be translated simultaneously. The interviews with politicians, NGO representatives, researchers as well as industrial farmers and processors were all conducted in English and carried out at the offices of each interviewee. The duration of interviews alternated strongly, as some interviewees did not have time for longer interviews. Thus, the shortest interview took around 30 minutes while others took around 2 hours. In all small to medium-sized enterprises, with less than 10 employees, it was possible to speak to the operator while in larger enterprises, spokesmen or other employees attended the interviews.

In general, the interviews were recorded on a recorder and/or smartphone and transcribed manually afterward. Seven stakeholders preferred not to be voice recorded and, thus, detailed notes were taken during the interviews. Several large firms also rejected the interview requests. Among those firms were multiple internationally acting dairies, investment companies, which are known for consolidating lands for industrial farming, and wood processors, which were previously publicly accused of land and forest grabbing. The different interviewees which are referred to in this thesis can be seen in

appendix 2. After the interviews were recorded they were manually transcribed into protocols and afterward thematically paraphrased and sorted. The following analysis was carried out as a structured and linear analysis of contents and informed the thesis through contextualizing, altering and enhancing knowledge from existing literature and studies. Their significance and relevance for the case of the Romanian Carpathians could be assessed through this generation of new insights. As the chosen method of data collection is open to different paths of knowledge generation, the condensed information came down to three specific cases, which could then be examined, and which helped to add on to the existing body of theory on smallholder farming:

1) The embedding of Romanian smallholders into global dairy value chains and the implications of informal markets
2) The implications of changes in farm succession patterns for Romanian peasants in the sense of SRD
3) Short food supply chains and their role for silvopastoral smallholder systems

Papers on these three topics have been handed in to peer-reviewed, scientific journals or are already published. The detailed information from these single case studies helped to inform the analysis of the entire production network around peasant farmers in the Romanian Carpathians.

## 3.2 Limits of the methodology

When assessing the chosen methodology, several statements should be made concerning its significance as well as the choice of how to approach the examined region and its actors.

There are few official statistics on smallholder farming overall in Romania, especially for single regions. A large number of peasant businesses are managed in an unregulated way in informal trades, and would, therefore, be considered as the “black market” in national statistics. However, the available statistics could be used to validate and deepen the understanding of the smallholder processes described in this thesis. Statistics to smallholder production and on-farm consumption are rarely available, and when available fluctuates enormously, depending on the region, the farming system, the size of the farm and the family. Thus, they are not really eligible for a detailed understanding

of underlying processes in smallholder agriculture. Furthermore, the recent developments in Romania, starting with the downfall of the Ceausescu regime, and followed by the redistribution of lands, the accession to the EU and ongoing land consolidation as a result of not having a national functioning cadastre system, led to a situation in which little data on land, farm succession, and smallholder production networks are available.

As a result of the sample size of interviewed actors being limited to 43 stakeholders, the results might be open to subjectivity and the opinions of single stakeholders, which might be confused with the facts shared by them. In multiple cases, the interviewees stated in advance that a personal opinion is about to be expressed, however, the inherent subjectivity in interviewing people should be taken into account.

Another difficulty in the field study was a language and culture barrier that hampered access to people and information. Even though literature studies about the area were meticulously prepared, the author is accustomed to working in an international field, and as learnings from interview to interview were generated, the cultural and, in particular, the language barrier was still experienced. However, the professional translation researcher from USAMV, Cluj-Napoca is a scholar in the field of agronomy and spent his childhood in the Carpathian Mountains, as part of a peasant family, and was thus able to speak the same dialect as many interviewees. As a result, his presence relaxed the general atmosphere in the interviews and therefore, greatly enhanced the quality of the interviews.

Lastly, one of the biggest problems of the study was to engage with actors in the production network, aside from the peasants themselves. While going to their locations and just asking for interviews was generally successful, approaching larger firms via e-mail, phone or personal contact was often rejected. Many firms seemed to be afraid of “investigative journalism” and offered only skype-dates, which they would not show up for. When visiting their offices and factories, the interviewers were asked to leave and to set a date with the spokesperson of the company, who, on the other hand, was hard to contact. This led to the group of investment and consolidation firms not being included in the analysis as primary data, and it hindered access to several industrial processors of

wood and milk who recently suffered huge reputational losses through reported cases of forest grabbing, land grabbing and issues with anti-trust authorities. Thus, in order to assess their role in the smallholder production network correctly, secondary data from NGO reports as well as intensive questioning of the other interviewees, about these actors' roles, provided the necessary data for the thesis. However, having personal access to the firms' representatives would have informed the study with additional perspectives and insights into these critical and often illegal processes. The mistrust of, and distancing by, these actors 'speaks for itself' and reinforces the many reports of informal processes guiding big parts of the production networks around peasants and, furthermore, underlines the trustworthiness of the interviewed actors, who are expressed their struggling with these exact dynamics.

## 3.3 Structure of the thesis and overview of the research papers

The following three sections (section 4-6) are the authors' articles, which have either been published or submitted to a peer-reviewed journal's review process. All articles are based on the data which was sourced from 2017 – 2019.

Section 4 focusses on the topic of both embeddedness and disembedding in smallholder farming, mapping the global production network of their existing value chains in the dairy industry and perspective developments. It is argued that two current developments, the globalization of the dairy market and the passing of smallholders' traditional distribution channels, lead to a situation for peasants where they cannot sell their dairy products at fair prices anymore. The situation is analysed using two frameworks, global production networks, and global value chains, and it is argued that informal markets and distribution channels must be included in these theories in order to be applicable for smallholder farming.

Section 5 deals with the passing of short food supply chains and how smallholders are affected by this process. Conceptually, it embeds the reality of smallholders into the idea of short food supply chains and their role for sustainable rural development. Furthermore, the subsidy design of the European Union for smallholder agriculture, which fosters sustainable livelihoods and food/fibre production, and its usability and

applicability in Romania is questioned, while also embedding the results of interviews and official statistics into the framework of sustainable rural development.

Section 6 further develops the topics from sections 4 and 5, in which it is argued that rural exodus and a further shrinking amount of existing peasant farms with no- to low-input farming systems will be the consequence of recent developments. The article focusses on the mentioned reasons as drivers of succession issues within the rural communities of Romania. It further investigates, via literature research and usage of the collected primary data, the rationale behind young, perspective successors leaving the countryside and choosing to not work the farm and land anymore. Moreover, it captures the consequences resulting from this development. The resource-based view is used to analyse the reasoning which motivates either farm succession or farm abandonment, and is the underlying framework for understanding the processes after farm abandonment, the concept of embeddedness is used.

The description of the study area with relevant statistics and legal information are pictured in sections 4.3, 5.4,

# 4 Informal markets and global value chains – the disembedding of Romanian dairy smallholders

## 4.1 Abstract

The Romanian dairy farming sector is marked by subsistence and semi-subsistence farms. Through consolidation in the retail and dairy sector, the price pressure has moved toward producers of raw milk. Through new European, national and private standards and global actors tapping into the Romanian market this development is reinforced. At the same time, the smallholders, formerly accepted to be acting on an informal level, cannot access their main distribution channels anymore. Additionally, through several legal constraints being developed since Romania's accession to the European Union, the smallholders are neither able to issue invoices, nor to access certain subsidy programmes as they are not considered juridical persons. This article focuses on the consequences of this disembedding of farmers. The peasants are pushed toward informal activities or value chain positions, in which they do not have any bargaining power with the globally sourcing intermediaries they are supplying. The contemporary approaches of global value chains and global production networks build the theoretical framework for the study. Here it is argued that informal markets must be included into these approaches more concisely.

## 4.2 Introduction

The Romanian dairy sector is in an advanced transition phase from its socialist-market period during the Ceausescu regime until 1989 and the subsequent restructuring of agricultural areas. Prior to 1991, farming was very fragmented with state-owned farming business, however, since land redistribution in 1991 consolidation of land and farming enterprises has been an ongoing process. Still, 97.5% of farms are smaller than 10 hectares and represent only 45.4% of the used agricultural area while 48.2% of the land of the land is worked by 0.4% of all holdings (Feher et al., 2017). The most compartmentalized farming landscape of Romania, which has the most fragmented structure in the European Union (EU), consists of the extensive dairy farms in the mountainous regions of the Cluj and Maramureș Carpathians, investigated in this study (Tudor, 2015). However, many farms are part of global value chains (GVC) and are thus

facing challenges of high competition in the milk market, supermarketisation of the Romanian food market and the strengthening connection of the Romanian market to the global market. Moreover, they are missing institutions to support market-based transactions, capital, seeds and other technology (Dries et al., 2004; van Berkum, 2005).

The structural data of Romanian agriculture in the EU context is striking and most of the studies dealing with smallholders and their economic situation and distribution channels are based on quantitative data (Dries et al., 2009; Feher et al., 2017; Popescu et al., 2017). While these studies describe the structural change within the whole country, market trajectories and their implications for smallholders through the disembedding from traditionally grown structures are rather neglected, while their existence and prospering is of major importance for sustained food security (Van der Ploeg, 2012). This study, therefore, examines the perishing distribution channels via farmer markets and the changing role of intermediaries as processors for dairy products of smallholders using the data of 25 in-depth expert interviews with different stakeholders in the Romanian dairy production system.

The stakeholders were farmers with different holding sizes, local, regional and national politicians, representatives of banks, consultants and NGO representatives as well as representatives of processors and veterinarians located in the counties of Cluj and Maramureș. This methodology facilitates an in-depth understanding of the high complexity of the underlying processes, which also reach into informal sectors about which little statistical data is available. The interviews were performed at the living- or workplace of the actors to ensure a comfortable setting for the interviewees and to evaluate the facilities prior, during or after the interviews (Flick, 2011; Glaser & Strauss, 2017; McIntosh & Morse, 2015). To contextualize the qualitative data obtained from the interviews, secondary statistical data from the European Commission and the Romanian National Institute of Statistics have been used.

## 4.3 Value chains and embeddedness in dairy farming

The process of globalization has led to new labour division strategies and more and more divided supply chains since the mid-1960s. Consequently, production processes have become more complex and diverse, stretching over the whole globe (Gereffi & Lee, 2012).

The linear and network approaches of GVC and global production networks (GPN) are offering a theoretical frame and appropriate instruments to analyse and understand the production processes and underlying mechanisms (Coe et al., 2008; Gereffi et al., 2005; Henderson et al., 2002; Lee et al., 2012). The global scale implied in these theories is the largest dimension of observation, which makes it possible to also use these frameworks for regional processes like raw milk production, which are connected to global processes (Coe et al., 2004; Henderson et al., 2002).

In the GVC approach, the actors are characterized by their bargaining power in relation to suppliers and buyers in the whole supply chain. While lead firms try to govern their value chains from a top- down perspective, suppliers try to upgrade their production to meet quality and quantity demands and to strengthen their bargaining power. Producer-driven chains are empirically connected to technology-, skill- and capital-intensive industries while chains around widely available goods of low complexity are mainly buyer-driven. The latter is the case for the value chain of raw milk (Lee et al., 2012). Strong brand names in the consolidated retail sector led to a bargaining power surplus over dairies, which must meet hygiene, price and quality standards to be recognized as serious suppliers by the retailers. This led to a consolidation among the dairies that allows the globally acting dairies, arisen from these consolidation processes, to transfer the pressure to the producers of raw milk (Dolan & Humphrey, 2000; Dolan & Humphrey, 2004; Gereffi et al., 2005; Lee et al., 2012). However, in the dairy chain, which is an agri-food chain with goods of short durability, the producers of raw milk can capture more value while being coupled to a globally acting value chain (Douphrate et al., 2013; OECD, 2016; Reardon et al., 2009).

This shift of price pressure and bargaining power results in two governance forms of value chains for milk producing smallholders that can be found at the intersection of global and traditional local markets (Bojnec & Fertő, 2014; Glover et al, 2014; Hammoudi et al., 2009; Lee et al., 2012). The latter form is organized in a traditional market way, characterized by low entry barriers and governed through price decisions in arms-length relationships with minimum coordination and inputs for producers. The captive GVCs of dairy products are marked by a strong coordination and regulation through globally acting dairies as lead

firms. Smallholders can participate by upgrading their product quality and quantity and selling at dictated prices according to the regulations of the leading dairies, which are globally acting multinational enterprises. (Gereffi et al., 2005; Gereffi & Lee, 2012; Humphrey & Schmitz, 2002; Lee et al., 2012).

The common upgrading processes on smallholder dairy farms are process and product upgrading. Process upgrading in raw milk production generally consists of milking and cooling more efficiently or hygienically or investing in technical equipment or more productive breeds. Product upgrading in the dairy chain mainly involves the possibility to process the raw milk. Functional upgrading is often hampered by the lead firms (Giuliani et al., 2005). After pasteurizing and homogenizing, which are standard processes to obtain permission to sell the milk, the raw material might also be processed into cheeses, yoghurts, cream, milk powder or other dairy products that have added value compared to the raw product (Dellmann & Hassler, 2017; Henson & Humphrey, 2010; Humphrey & Schmitz, 2002). Consequently, smallholders have three possibilities to react to the growing pressure through the private standards of large-scale retailers that is moved to them by the intermediate dairies. Upgrading to meet their standards and to couple with buyer-driven GVCs; downgrading as their processed products do not meet the standards but primary products do; or a market exit from the GVC toward local traditional markets, which are organized with less strict regulations, lax liability and almost no entry barrier (Gibbon, 2003; Lee et al., 2012).

While these theoretical approaches provide a framework for understanding the opportunities of smallholders in the dairy value chain, it does not provide a suitable frame of analysis to understand which social and political mechanisms push or hinder peasant farmers from developing into the different possible directions. To cover these mechanisms, the concept of embeddedness will serve as a tool of analysis. As embeddedness was widely criticized for its fuzziness as a concept, the following section aims to clarify the concept and its role in smallholder farming. Embeddedness has three types depending on the context. Societal embeddedness consists of the historically shaped perception, strategies and actions of stakeholders in the GPN, representing the personal, local, regional and national culture of its actors (Hess, 2004; Hess & Coe, 2006;

Rainnie et al., 2011). In the agrarian context, it includes traditional distribution channels, forms of collaboration, perception of and by policymakers and citizens, forms of cultivation, rural livelihood and patterns of consumption (Hughes et al., 2008). However, the concept of societal embeddedness is also dynamic as it changes through the joining of information of different generations, farm sizes and cultures. The dynamism is exemplified by long-term investments which are just made, when farm succession is socially embedded (Henderson et al., 2002; Men, 2014). The second type is network embeddedness, which is characterized by the quality of connections between actors who impact each other. This might include trades and help from farmer to farmer, a good social relation with local authorities, customers and day workers. It might also include bundling the interests of smallholders toward policy makers, which is especially important in post-socialist countries where resentment from farmers toward policy dates back to socialist times (Bowen, 2010; Roger, 2014). Thus, embeddedness is socially horizontal as well as hierarchically vertical (Henderson et al., 2002; Hess, 2004; Sonnino & Marsden, 2005).

The third type – territorial embeddedness – is very strong in agriculture due to the connection to the worked land and the long-term processes and generational ownership and heritage that are inherent to it and result in localized manifestations (Hess, 2004; Van der Ploeg, 2014). Territorial embeddedness evolves over a long period of time and might lead to certain products, their tastes and ways of production being connected to a region. If that connection is unclear, smallholders are generally not able to enter niche markets, as products from industrial production are cheaper and of a stable quality (Bowen, 2010; Roger, 2014). Other examples of territorial embeddedness are fixed informal land rights and steadily repeating transactions between stakeholders. The aligning of these three types of embeddedness is of importance for smallholders to avoid exclusion from their markets and distribution channels through quality and quantity standards (Bowen, 2010; Singh, 2013).

The processes of embedding/disembedding will be understood as the improvement/ deterioration of the situation of a certain actor or group of actors from this perspective. Territorial disembedding in agriculture entails a disruptive change of structures through

the strategic takeover of resources such as land, water and market outlets, which also leads to deterritorialization of farmers (Van der Ploeg, 2014). Network disembedding can be driven by new legislation or new market entries. For example, farmers can be disembedded from their distribution channels while intermediaries are better embedded through them within their existing GPN. However, smallholders are reinventing their practices and production patterns to re-embed themselves despite the growing pressure on primary producers, exemplified by the start of organic production by northern farmers who tried to align legal and private quality standards with their traditions and authenticity (Van der Ploeg, 2014). Societal disembedding happens, for example, when the perception or culture of actors in the group changes and thus influences the behaviour toward other stakeholders. When a group of actors closes ranks and thus has better connections with each other, societal embedding is happening. The critique that embeddedness does not play a role for the global industrial food economy (Murdoch et al., 2000) has been addressed by Van der Ploeg (2012) who placed smallholder agriculture into the focus by arguing that almost 40% of the world's population are living in small farm households and that they are part of the main solution for global food security. The critique that embeddedness is a fuzzy concept is sufficiently addressed through the three types of embeddedness (proposed by Hess, 2004, 2008; Hess & Coe, 2006) outlined above with consideration for smallholder farming.

In emerging economies marked by smallholder agriculture, the highly regulated and subsidized milk and dairy sectors change their appearance concerning standards, hygiene regulations, packaging and declaring information. This appears through the coupling to global value chains through globally sourcing lead firms breaking into local markets (Knips, 2005). This network disembedding of smallholders in post-socialist countries is marked by not fulfilling quality standards while not being able to enter niche markets and not being organized in cooperatives to exercise bargaining power in politics and with intermediaries (Lee et al., 2012; Maertens & Swinnen, 2009; Tudor, 2015). This lack of power leads smallholders to market exit, changing distribution channels and production patterns to formerly societal and network-wise embedded transactions such as (black market) bartering and undeclared economic activity without hygiene standards, taxes

and regulations (Kim, 2005). How these informal activities influence the balance of power in agri-food chains and how they are triggered will be examined in this work.

Dealing with subsistence and semi-subsistence farming, three major influence factors for the categorization can be found in economic literature: the amount of goods sold at the market, the amount of on-farm produce and the size of the farm. For the semi-subsistence farms that are focus in this study, the definition by Giurca (2008) will be used, while the referred surplus shall not be more than 30%–70% of the production volume: 'A farm producing mainly for self-consumption, but also selling a certain part of the production, in which the "surplus" part that is sold features a certain degree of regularity and consistency' (p. 217). Smallholder farms are generally defined as being a maximum of 10 hectare. However, this maximum size is relatively high as the farms discussed in this paper are located in a mountainous region consisting of smaller farms (Alecu & Giambaşu, 2015; Simona, 2013).

## 4.4 Dairy farming and trade in Romania: structure, laws and regulations

The structure of Romanian agriculture is unique in the European context. Having 33.49% of the European agricultural holdings while only representing 7.47% of its agricultural area in 2013 (Eurostat, 2017a), the structure is considered a burden for the productivity of the Romanian agricultural economy (Boboc et al., 2017; Feher et al., 2017; Gavrilescu & Gavrilescu, 2007).

*Table 1: Farming structure in Romania*

| Facility type | Size (hectares) | Number | % | Area (hectares) | % |
|---|---|---|---|---|---|
| Agricultural households | <1 | 2009290 | 55.3 | 652800 | 5.0 |
| Subsistence and semi-subsistence farms | 1-10 | 1531650 | 42.2 | 5269900 | 40.4 |
| Commercial family farms | 10-100 | 75640 | 2.1 | 832690 | 6.4 |
| Commercial farms (companies) | >100 | 13080 | 0.4 | 6300460 | 48.2 |
| Total | - | 3629660 | 100.0 | 130 | 100.0 |

*Source: Feher et al., 2017, p. 671*

As table 1 shows, the households with less than one hectare of land represent over 55% of the holdings, while only accounting for 5% of the used agricultural area (UAA). At the same time, another 42% of the holders have 1– 10 hectares accounting for 40% of the UAA. However, the biggest part of the UAA, with 48%, belongs to 0.4% of the holders who own over 100 hectares each.

That structure is a result of the political history of Romania. Since the downfall of the Ceaușescu regime in 1989 and the following redistribution of land, the relatively slow consolidation of the small parcels of land and the privatization of former state-owned agricultural holdings has led to Romania's current agricultural structure (Roger, 2014). In 1989, after the phase of forced collectivization, over 8 million hectares were in the hands of legal associations and only 2 million hectares were household farms. At the time, holdings over 50 hectares were forbidden to be privately owned. Within three years after the downfall, the structure changed completely. People living in rural areas were given the right to access 0.25–1 hectare of land and people who used to work in agricultural holdings up to 2.5 hectares. Moreover, the state-owned land was starting to be sold to private investors. Thus, in 1993 the legal associations accounted for ownership of 1.9 million hectares while newly founded family associations accounted for ownership of 1.7 million hectares and household farms for 7.3 million hectares. Family associations dissolved after a law was passed in 1996 that stated that associations should not work on more than 200 hectares which led to a further rise in household farms to over 10.3 million hectares in 2001 (Dawidson, 2005).

From then on, the agrarian industrialization led to further development of the Romanian agriculture and dairy farming sector. In 2013, over 97% of the farms were smaller than 10 hectares representing 45.4% of the UAA and summing up to 3.540.940 holdings (Eurostat, 2017a, 2017b; Ministry of Agriculture and Rural Development, 2017). These farms are typically mixed including vegetables, grains and corn for subsistence and dairy products and meat for own use and sales. Since the accession to the EU in 2007, the farming structure has already been advanced and consolidated through regulations and market pressure. In 2015, price pressure on raw milk producers increased because of the ending of milk quotas, as the European raw milk production is marked by overproduction

(Dellmann & Hassler, 2017). In the region Nord-Vest, which includes Maramureș and Cluj, that development caused enormous change since 2005 where the farm structure looks similar to the one depicted in table 1. The number of overall holdings shrunk in the years from 2005 to 2016 by 19.11% to 478,490 while the number of semi- subsistence farms shrunk by 16.57% to 388,340. That led to 8.15% less UAA in the development region Nord-Vest (Eurostat, 2018a).

The Romanian processing sector produced 876,690 tonnes of dairy products in 2015, while only 546,920 tons (62.38%) were produced by 97.65% of the dairies. The remaining 37.62% of dairy products were produced by 8 dairies (2,35%). The overall number of dairies in Romania declined from 410 in 2006 to 340 in 2015 while the legally processed goods declined from 1,085,840 to 876,690 tonnes (Eurostat, 2018b). Additionally, the dairy sector is marked by informal activities, as according to the Factor Research Development Center (FRD Center, 2017), 40% of the dairy volume is produced and sold on the black- market. Another 35%–40% is estimated to be consumed on farms by the farmers and calves (Dobra & Sandru, 2016). Thus the 1,028,800 tonnes of raw cow's milk being processed to 876,690 tonnes of dairy products are estimated to be 20%–25% of the overall raw milk produced (Eurostat, 2018a; Van Berkum, 2006). The retail sector for food and dairy products becomes more and more consolidated while no reliable numbers on the current informal trading activities are available. As the FRD (2016) reports, 80% of urban buyers buy from stores, while 42% buy from farmer's markets and 31% get their cheese from acquaintances in rural areas. At the same time, the report states, that only 19.5% of all milk is packaged and sold in shops. This demonstrates the vast amount of on-farm consumption and informal activities around dairy.

The producing, processing and sales of raw milk and dairy products are affected by several regulations in the national and supranational context. The approach of the Romanian state toward smallholder production is quite clear, considering law 247/2005. Containing 'renta viagera', a lifetime annuity system of getting paid €50 per hectare per year for leasing, or €100 for selling, smallholders were persuaded since 2006 to sell their land to semi-subsistence farmers and bigger holdings (Ghib, 2008). A further hampering regulation for smallholders is the economic size classification based on law 37/2015. The

smallest category found there consists of small commercial and semi-subsistence farms starting at the yearly economic output of €2,000–49,999. Thus, the smallholders with lower output are not affected by the Common Agricultural Policy (CAP), nor do they have access to national funding. Officially, they are counted as part of the 'Non-Observed/Non-Registered Economy' and treated like 'Undeclared Work' (Redman, 2010). The smallholders, who are under that demarcation line, striving for the status of a juridical person, are obliged to prove three years of constant delivery to a buyer, who already has the status of juridical person. Until 2006, the informal trading of smallholders was widely accepted, but since joining the EU, Romania has tried to stop this institutionalized black market to meet EU requirements (Roger, 2014).

This has led them to a situation in which they are often not part of the circle of interest of bigger buyers because undeclared workers are not allowed invoice and to sign certain business contracts. The invoices are crucial for the prospective buyers, who have official and taxable entities to legally buy and sell or process the products of the smallholders. This results in the smallholders being barely able to sell elsewhere but on the roadside, on peasant markets, to neighbours and friends or to processors who are willing to take the risk of the illegally traded dairy products. The ones who have an output smaller than €2,000 are, therefore, treated more as a social problem, than as eligible for being fostered in growth and development. As the subsidy schemes changed (law 3/2015) in 2015 and farmers were able to receive the mandatory payment per hectare and per capita directly, smallholders with an output lower than €2,000 were no longer impacted as negatively by the Romanian development of fostering bigger holdings. Still they are not able to access any other funding or to sign contracts (Dumitru et al., 2017).

Hygiene at the processing level is regulated by the EU laws 852/ and 853/2004. They enforce basic regulation, measurements and standards for farms and dairies, which resulted in the Romanian legislative body to pass a regulation that makes it mandatory to process at least 1000 litres of raw milk per day to sell the dairy products in a distance greater than 36 kilometres (Roger, 2014). EU-law 88/2016 amended by the Romanian law 192/2017 requires strict labelling on dairy products including the list of ingredients, the exact weight, expiration date, fat content and nutritional declaration. For smallholders it

is nearly impossible to include this information. As the Romanian farming sector was not prepared for many regulations, supply from abroad increased greatly. Thus, Romanian law 150/2016 was instituted and dictates that 51% of the fresh food products sold in supermarkets, including dairy products, must be produced in short supply chains in Romania. Dealing with the legislation concerning raw milk and dairy production, the enforcement of the laws plays an important role. During the interviews many farmers reported that the laws and regulations are rarely enforced. This is because Romania is historically marked by high levels of corruption and informal structures.

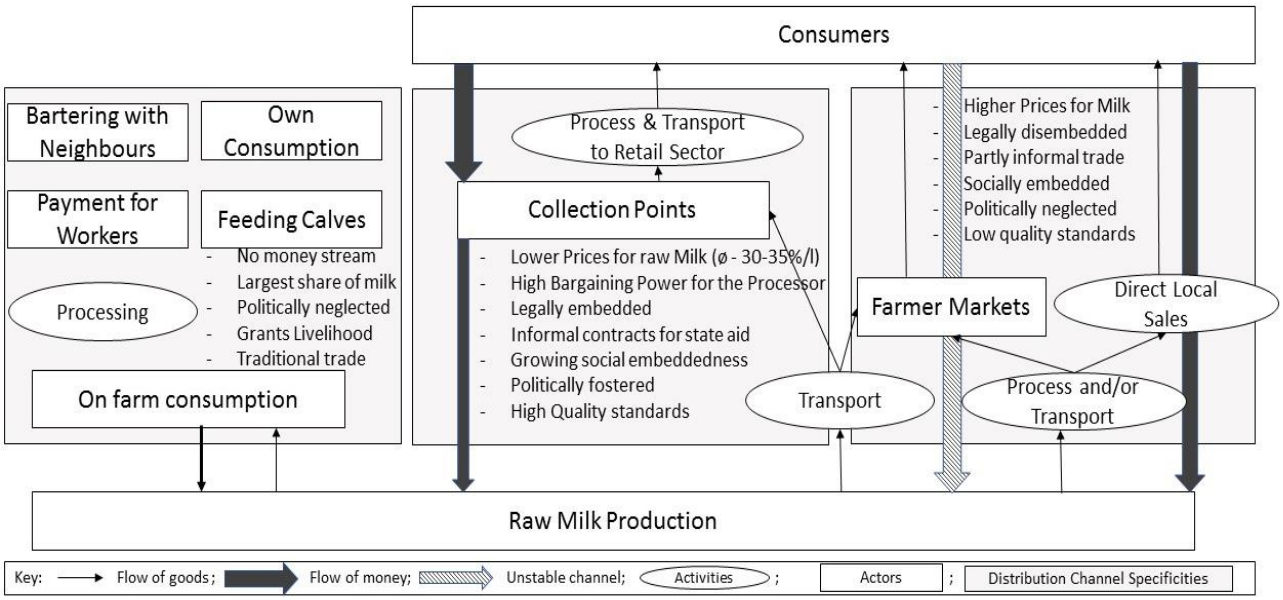
## 4.5 Distribution channels of raw milk

Table 2 shows the distribution channels of raw milk for smallholder farms including a characterization of societal, network and territorial embeddedness and money flows. The first pillar represents self-supply and calf feeding, accounting for the biggest amount of raw milk consumption (60%–90%), which is indicated by the upstream arrows. This is followed by the two other pillars; sales via an intermediary and direct sales (10%–40% each). The thickness of the downstream arrows signifies the money flow. The most important income sources for peasants are farmer's markets (1), direct local sales (2), intermediaries at collection points (3) and bartering (4). Other possible niches for smallholders, such as customer-supported agriculture or permanent shops in towns, are not well established due to a strong cultural embeddedness in existing traditional distribution channels and patterns. As the valuing of traditions in the research area is high, people trying new distribution channels are laughed at or begrudged.

*No way. Not at all we can think of specialising on something. It is a part of our culture. (Farmer 1, female)*

Moreover, diversifying from existing production patterns or products, such as traditional cheeses, yoghurts and drinking milk, is not an option for most smallholders. That kind of 'overembeddedness' on all levels leads to a low degree of innovation, neglecting economic viability, and results in lock-in effects. The peasant farmers in the research area have 2–25 cows producing 15–120 litres of raw milk per day. The goods, which are not used on-farm for self-supply, bartering, payment for workers and feeding calves, are valorized through two main channels:

*Table 2: Distribution channels for raw milk production of smallholders*




*Author's own elaboration*

farmer's markets and direct sales. Direct sales are made in an average distance of 1.6 km, as mobility is limited due to a lack of motorization and infrastructure (Balint & Wobst, 2006). The entry barriers for the traditional local market forms are low as there is barely any product diversification, low quality standards, little to no paperwork and mostly informal structures. A booth at a market costs €0.22–0.88 per day while the revenues on the sold dairy goods, which include different cheeses, yoghurts and raw milk, are on average 30%–35% higher than for delivering to intermediaries at collection points (Balint & Wobst, 2006) and up to 200% higher than at the farm gate (FAO & European Bank for Reconstruction and Development, 2007). Thus, the value capture is comparably high for the producers at markets (Table 2).

### 4.5.1 The disembedding of traditional distribution channels

These informal channels without contracts but trust- and price-based farmer-to-customer relationships and via peasant markets have risen since the downfall of the Ceausescu- regime and are the only source of income for many farmers and are thus territorially and socially very well embedded in these networks. Even though considered to be a grey business activity, the sales via these channels were tolerated by the police and the legislators. The interviewees noted that smallholder dairy farmers were able to

keep their products at a stable price point as they were unaffected by the institution and abolishment of milk quotes and by the financial crisis of 2007 and 2011. The social embeddedness is also shown by the estimated volume of dairy products moved through informal channels. In 2015, 48% of the whole food retail still took place via these traditional channels but, due to high price sensitivity and growing market penetration of supermarkets, they recorded a lowering tendency. The Romanian dairy market is a particularly stark example of informal market trading in the EU and demonstrates the tradition and societal embeddedness in this market. In Romania, 80.5% of the milk consumed is not packed or sold at retailers and 40% of the dairy processing happens through black market activity (FRD, 2016).

As cooperatives are not common among smallholders due to the socialist history of forced cooperatives and denunciation, farmers are acting individually with very small supplies. The embeddedness of grey distribution channels is also demonstrated through the lack of competitiveness among farmers. However, farmers do feel the need to compete for final consumers against supermarkets emerging in bigger villages. These larger supermarkets make it harder for minimarkets and farmer's markets to continue existing, thereby reducing farmer's ability to sell their goods in their traditional business models. While the super- and hypermarkets have taken over almost the complete local supply for cities, the niche products from the countryside are barely available there even though the same industrially produced supermarket products are available at markets and cash and carries. However, the awareness of that kind of high-quality traditional produce is still there as many people grew up in rural areas and have personal connections to farming families.

*You have to take your childhood memories into consideration. The taste of for example Maramureș food, where I am from. I am interested in it. (Researcher and regional politician).*

While the societal embedding of the farmer's markets has homogeneously grown since the end of the communist regime, the network embeddedness of grey market activities has shrunk in the last decade. Since Romania joined the EU in 2007, these informal, untaxed distribution channels now lack network embeddedness, as they do not fit EU

regulations. With a change of the legal framework for smallholders through laws like 852/2004, 247/ 2005, 37/2015, 88/2016, and the lack of enforcement of law 150/2016, the smallholders are no longer embedded in the now European dairy production network. Through 37/2015, the smallest landowners are excluded from subsidies and with law 247/2005, the state tries to foster the consolidation of land and market exit of smallholders. Further, through the implementation of EU-regulation 853/2004 in law 88/2016, hygiene and packaging standards as well as distribution regulations developed in the direction of industrial farming and dairy production, while the fulfilment of these requirements is perceived as impossible by the smallholders.

At the same time, law 150/2016, which would enlarge the share of Romanian agricultural produce in supermarkets to at least 51%, is not enforced. Additionally, police forces being present at peasant markets and street sales to prohibit black market activities hamper the traditional main source of income to comply with the European approach of prohibiting black market activities, while the law enforcement in stationary shops is felt strongly among smallholders. Especially in the urban areas, most of the peasants do not have any legal or tolerated stationary selling point anymore. Concerning their legally precarious presence at farmer's markets from a market administrator's perspective, the weather, health of the animals and electricity breakdowns make smallholders less reliable business partners. When collaborating with the individually acting farmers who are refusing to associate in cooperatives and consequently supply small quantities, the transaction costs for market administrators are overwhelming. In the case of Maramureș and Cluj, this lock-in effect caused by a territorially embedded bias against cooperatives could not be effectively overcome with the EU giving non-refundable funds to cooperatives and the focus on cooperatives within the National Plan for Rural Development in place from 2014 to 2020.

*But because we didn't associate, the supermarkets have it easier to make contracts with somebody from Hungary, Ukraine, Turkey or Poland. They can give them 100.000 tonnes. […] So they sell on the street, without papers. It is not possible for markets to speak with thousands and thousands. (Researcher and regional politician)*

This network disembedding through legal changes and the low supermarket prices resulted in the administrators of farmer's markets to feel price and legal pressure and thus they switched to renting out their booths to people buying at the wholesale food market. This process assures the administrators legal compliance and the security of having the same supply of the same quality with fixed contracts on every market day. Through doing this, they became integrated into GVCs and could cut transaction costs and low security in the supply quality and quantity. This development started in bigger cities like Cluj-Napoca and has spread to smaller towns leading to a gradual lapse of peasant markets as a distribution channel for smallholders. Thus, the appearance of the peasant markets stays the same, while the products come from the wholesale sector, being integrated in GVCs.

*The private administrators will choose now the people that are always there, no matter what. The peasants cannot always be at the market, so the private administrators chose the retailers who buy from the wholesale food markets and that is how you get to this kind of other framing of what is a peasant market. (Representative of EcoRuralis)*

Consequently, it becomes crucial for the small dairy farmers striving for additional income to be a part of that fast-growing dairy chain, built around supermarket chains, food wholesalers and global intermediaries acting as processors. Thus, the collection points of globally acting processors are becoming the main distribution channels for many farmers.

### 4.5.2 Growing bargaining power for intermediaries

As associations and cooperatives are neither socially nor territorially embedded due to the forced socialist cooperative system mentioned above, and the farming structure in the Carpathians is so multipartite, the shrinking informal distribution channels lead to vertical integration of single farms into global production networks of global lead firms

that are trying to meet the growing global demand for dairy products (High Level Panel Experts [HLPE], 2013).

*We would get 2 RON per litre as a cooperative, but as individuals, we get way less. We would have better opportunities as an association, I talked to the director of Napolact […]. (Farmer 2, head of a local, barely working cooperative)*

Table 2 shows that the unprocessed milk is transported by the farmers to collection points in nearby villages. Farmers use bicycles to transport the milk shortly after milking the cows. As cooling is too energy intensive for peasants, the milk must be transported in the first few hours after milking before becoming curdled. Moreover, even though the returns are highest for selling cheeses and milk informally and all the farmers have the means and knowledge to produce it, many choose to sell raw milk to processing intermediaries such as Napolact, owned by Friesland Campina from the Netherlands, and La Dorna, owned by Lactalis from France. This happens for several reasons. Firstly, the reduction of peasant markets and high transaction costs via single sales leads to insecurity selling via informal channels for farmers as well as for customers who are taxable persons. Secondly, the intermediaries are reliable partners, paying for the milk on time and being flexible regarding the delivered amounts. Thirdly, to grow the business and become a juridical person and consequently qualify for national funding and CAP-measures, farmers must prove to be able to deliver set amounts by contracts to the state.

*Basically, we do not have another option, and we are totally not ok with the price. We drive it down with the bicycle every day. And in the future, when the price will drop even more, it will be like: What can we do with this milk, we cannot just throw it away. […] They pay like 0.8 RON/litre. (Farmer 3, couple located in an outlying area)*

These processing intermediaries in the research area are local monopolies, regarding the reach of actions of smallholders. The collection points are placed in central villages. Typically, the 2,000–4,000 litre raw milk/year contracts between intermediary and farmer are designed for a few months and bargained regularly. This individual bargaining implies huge transaction costs for the processors and price fluctuations from 0.7 RON to 1.75 RON/litre (€0.15–€0.38). Being in competition with farmers from abroad and in the

consolidated lowlands around Gilo as well, the bargaining power of smallholders is fractional. It is also weakened by the fact that farmers who can produce cheese in larger amounts are not able to sell them in an over 36 km distance from their farm according to the Romanian implementation of the EU regulation 852 and 853/2004 (FAO & EBRD, 2007). That leads to pressure for producing more raw milk of higher quality to fulfil the demands of processors.

*We don't feel threatened, but we feel a high pressure to produce more. It is about the quantity! (Farmer 2, head of a local, barely functioning cooperative)*

### 4.5.3 Consequences of the network disembedding

The new structure of distribution channels now focuses around the delivery of raw milk from smallholders to collection points of global actors while direct sales still make the largest revenue per unit (Table 2). However, due to missing volume via peasant markets they are not as important anymore for the surplus money of smallholders as the former peasant market volume was mainly transferred to the volume to supermarkets via intermediaries. This has multiple consequences for smallholders and their land. Many farmers are forced to downgrade their production from processed dairy products to raw milk, as they cannot realize a market for dairy products anymore. The legally disembedded distribution channels also partly lead to upgrading processes for the farmers who are able and willing to invest in their farm. As processors are willing to pay prices up to €0.44/litre for certified organic milk, farmers with relatively big herds are considering the investment of €300/year to be certified by a third party. They claim that it is economically viable mainly for other products produced on the farm, such as meat or produce from fruit trees. However, only some collection points separate organic from non-organic milk and the certification is too costly for many.

*We are interested in certification, but we cannot afford it. A once-off payment yes, but not an annual one (Farmer 4, couple from Maramureș)*

Napolact offers a certification at some collection points which is partly based on a quick milk test at the collection points and partly trust-based, which puts them into an even stronger bargaining position with the farmers. Another possibility for farmers to upgrade their production is to increase their quantity to receive better prices.

However, as cooperatives are still not an option and money for investments is rare, most smallholders cannot rent or buy enough land to become a more relevant supplier for the processors. Single cases of cooperating farmers with good access to education and capital show, however, that the possibility exists. If the farmers are neither able nor willing to upgrade or downgrade their production, they are forced to exit the market, do not receive subsidies and are hampered in their access to black-market income and consequently immensely affected in their livelihood. This is due to their disembeddedness from their previous network. It also means a complete cut-off from GVCs and downgrading into subsistence farming and bartering.

Another consequence, mainly pushed by law 37/2015, is that the contracts between processors and farmers are made more as a guideline than as a formal contract as many cannot fulfil the big amounts of milk, stated in the contracts. While their main purpose is to be shown to the subsidy commission by the farmers to qualify for national and certain CAP measures, the processors gain a lot of bargaining power over the farmers. They store and write the contracts for the duration of the business relation to be able to push down the prices for the raw milk by pressuring the farmers who are dependent on the access to subsidies. This development will lead to subsidy frauds as many farmers in fact are not able to pass the demarcation line of a yearly economic output of over 2,000 €, which is not checked by the subsidy agencies and thus network- wise embedded.

*Basically, you cannot influence the price for the organic milk […] but you do not really have another option as a deal, so you take this one or you will not be able to access the money to enhance your farm. (Farmer 5, Mărișel)*

Further, as almost every peasant is producing the same goods, the direct sales are declining because of competition among themselves and missing distribution channels outside their own villages. However, due to the 'overembeddedness' described earlier, product diversification is unlikely. At the same time, the consumption patterns in Romania change and cheeses from all over the world find their way onto supermarket shelves.

*The main hindering for growth is […] the missing understanding of competition, associations which are not in place, the question of being able to sell everything which is produced, the importance of perception in the community and the missing clients in the area, as most people produce the same (Farmer 6, head of a beekeeping association).*

In the long term, the absence of peasants at farmer's markets also leads to alienating customers from local, traditional food and lowered awareness of farmers and local dairies. This goes along with less valuing of the farmers resulting in worse chances for farm succession, which is already low for smallholdings in the rural areas of Maramureș and Cluj. Many young people do not wish to take over their parents' farming business because of low income opportunities.

*[…] Instead, many young people from farming families start to smuggle small amounts of cigarettes once a week [from the bordering Ukraine] as it is an easier and more already more profitable way of living (Farmer 7, Petrova).*

Many others leave to go to bigger cities hoping for better opportunities and education. This results in a diminished workforce on farms and leads to fallow land in the long run. The lack of interest from children in their parents' farms leads to the parents making fewer and short-term investments in the farm, which makes the business less attractive. Investments for upgrading are further hampered through the insecurity of contracts and subsequent income, disabling the farmers from being able to plan long-term investments. Regarding the aspect of investments, the lack of network embeddedness of farmers within the financial system plays a crucial role. Farmers are unwilling to approach banks to apply for credit due to historical and cultural fear of banks, while many banks do not see peasants as strong prospective clients.

*No banks. We will not collaborate with banks, because we are afraid of the high interests. We heard about 18%–25%. So, we are just borrowing money from the family. Because there is no interest. (Farmer 5, Mărișel)*

In that circular process, the smallholder farms of Cluj and Maramureș will be consolidated to industrial farming or abandoned within the next generation. Until then, the

disembedding of smallholders from their networks, production and sales patterns results in hampered livelihoods for smallholders and consequently informal transactions.

## 4.6 Conclusion

The example of smallholders in the Romanian dairy industry shows that the legal disembedding from traditionally grown structures leads to exclusion of the actors with the lowest bargaining power from global agri-food chains. As GPN and GVC literature state, the next step for the smallholders would be market exit, product diversification into short value chains or upgrading to be integrated by global players (Lee et al., 2012). For many, upgrading is not possible because of a lack of knowledge, financial means and motivation through a lack of successors. As the supply side is marked by over- production and suppliers can easily be switched, the willingness of processors to support farms in their upgrading processes is also limited. Through the societal and territorial overembeddedness and consequently developed lock-in effects, many farmers become stuck in a circle of helplessness and unable to engage in product diversification and thus produce the traditional dairy goods of the area.

As the access to legal distribution channels for these traditional goods has been hampered by national and supranational law, formerly tolerated informal channels became another viable option for dairy farmers in Maramureș and Cluj as short-term livelihood became most important for many. These informal channels do not only include selling via the remaining farmer's markets and on street sales without papers and being untaxed. Additionally, making contracts of fallaciously large volumes with global players to become qualified for Romanian and EU-wide subsidy programmes became a new way to earn surplus money. This process has gained special momentum in Romania, as the socialist history leads to preclusion of cooperatives among smallholders for fostering their own position within their value chain, share and accumulate knowledge and reach positive economies of scale on sales. Further, this development is fostered by the lapse of farmer's markets as main distribution channel, which has instead been taken over by salesmen who are buying their dairy and other products at the food wholesale market. Additionally, police forces are increasingly being mobilized at farmer's markets to prevent informal sales activities.

The long-term consequences for the land and the smallholder families are insecure farm succession; new informal activities like smuggling among children, a loss of culture, tradition and traditional landscapes; and finally a smaller UAA within Romania. While the HLPE claims that peasantry is one of the most important solutions for food security (2013), the national and supranational regulations contradict this as smallholder farming is disembedded from existing structures and pushed into illegality. This process disables smallholders' bargaining power immensely while fostering the growth of the globally sourcing intermediaries. Consequently, the prices for raw milk producers are driven down even though the quality is improving. The regulations also strengthen the position of the dairies and their buyers towards political actors, as the bargaining for subsidy-granting contracts is done without legal supervision and the livelihoods of many Romanian farmers are dependent on the private standards set by dairies. That processes like these hinder development in the direction of sustainable food security for the future is also supported by similar works assessing agro-ecological systems in all parts of the world (e.g. Horlings & Marsden, 2011; Marsden & Sonnino, 2008; Van der Ploeg, 2012).

This study helps to show how important and valuable the lens of embeddedness is for analysing the situation of smallholders in a socio-economic context. GPN and GVC researchers should provide a clear understanding of embeddedness when analysing market access and distribution channels because informal markets can also be embedded in multiple ways in societies and constitute a viable option for stakeholders who become disembedded from existing structures. The results of this study also show that policy makers should pay special attention to the embeddedness of farmers in existing structures, when designing subsidies and regulations to prevent them from driving the informalisation of markets.

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# 5 The passing of short food supply chains for smallholders in the Romanian Carpathians

## 5.1 Abstract

Short food supply chains are traditionally important for subsistence and semi-subsistence farms, which mark the Romanian farming sector. These SFSCs are considered by the EU and UN, via their sustainable development goals, as a part of the solution to the question of rural development for a sustainable future without hunger. While sustainable rural development is meant to be fostered by these institutions, the reality of smallholders is often marked by missing market access, low means for investments, high price pressure through global actors, tapping into the Romanian market, and hampered subsidy access. The contemporary approaches of short food supply chains and sustainable rural development build the theoretical framework for the study. Here it is argued that specificities of the Romanian farming landscape in the Carpathians and the construction of subsidies might lead to the passing of SFSCs for smallholders and push them to quit farming or to supply to globally sourcing intermediaries. Thus, the complex, mixed farming systems, with no to low inputs, yield to low-diversity farms, thus neglecting issues of social and environmental sustainability in farming activities.

Key words

Short food supply chain; smallholder farming; subsidy design; integrated farming; Romania

## 5.2 Silvopastoral systems as future-oriented agricultural systems

With a growing world population of an estimated 9 billion people by 2050, landowners, scientists, and policymakers are working on solutions to create and establish agricultural systems which are highly productive and — in response to the recent IPCC report and other studies on climate change and social injustice — also socially and ecologically sustainable, as well as being economically applicable and allowing farmers to meet the growing demand for food, fibers, and biomass (Lasco et al., 2014; IPCC, 2018; Samir & Lutz, 2017; Schmidhuber & Tubiello, 2007). The last decades of increasing productivity were marked by a shift to highly intensive industrial farming, through mechanization,

monocropping, excessive use of industrial fertilizer, pesticides and, partly also, genetically modified plants (Coelli & Rao, 2001; Lipton, 2001; Martin & Mitra, 2001).

While these systems became more productive over time, multiple negative side effects like losing biodiversity and pollinators, less employment in agriculture, less diverse landscapes as well as losses of traditional farming forms and knowledge appear simultaneously (Cheshire & Hay, 2017; Tscharntke et al., 2012). High outputs result in overproduction of food compared to human consumption, and low food prices for both consumers and producers (Woodhouse, 2010). However, with over 780 million people being undernourished, despite overproduction, a distribution problem of the produced food is obvious (McGuire, 2015). These critical points, from the scientific as well as political and public discourses, resulted in scientists and landowners (re-)discovering and investigating other agricultural systems. Within such research, there are not only new farming systems, such as urban gardening or vertical farming but also old and traditional agricultural practices such as agroforestry systems (Bignal & McCracken, 2000). These agroforestry systems became a focus of research in 1976, when the International Center for Research in Agroforestry (since 2002: World Agroforestry Center) was founded, and gained even more attention recently in research and policymaking (Coe et al. 2014; Zomer et al. 2014; FAO 2013; Cardona et al. 2014; IPCC 2018).

Numerous traditional farming systems are involving trees as the main factor of production (Parrotta et al., 2015; Fike, 2016). The farming systems differ in their appearance, dependent on the physical and climatic preconditions of their location, tradition, and culture as well as the markets and communities built around them. In this study, the focus is set on mixed farming systems with a combination of silvopastures with area-wise 5-10% scattered trees and shrubs on them, field-crops, and small patches of horticulture. The systems should be understood as integrated agricultural production systems. Integrated systems entail multiple enterprises that interact with each other. The interaction results in synergies which transfer different resources among the enterprises, leading to closed circle-like systems with an additional output which are mainly distributed via short food supply chains (SFSC) or Global Value Chains (Hendrickson et al., 2008; Plieninger et al., 2015; Renting et al., 2003).

These systems mark Romanian agriculture on traditional (semi-) subsistence holdings. Farms with less than 10 hectares are accounting for 97.5% of total holdings while representing only 45.4% of the used agricultural area (UAA) (Feher et al., 2017). While the lowlands are already affected by consolidation tendencies and higher degrees of industrial farming, the mountainous regions of the Carpathians, in the counties of Cluj and Maramureș and investigated in this study, are still mainly home to extensive dairy farms on woody pastures. Although such farms often supply to informal value chains, they miss the necessary institutions to support market-based transactions, capital, education, seeds, and further technology (Dries, et al., 2004; van Berkum, 2005).

While many recent publications on Romanian smallholders focus on the strikingly segmented structural Romanian farming data (Dries et al., 2009; Feher et al., 2017; Popescu et al., 2017), latter studies on agroforestry focus on modelling, ecological effects, and countries of the global South. This leaves many gaps in understanding the specifications of single functioning integrated farming systems in a European context, including the socio-economic consequences of the smallholder value chains (Zomer et al. 2014; Woodhouse 2010; Lasco et al. 2014; Altieri et al. 2012). Thus, this study examines the important role of trees in the value generation on smallholder farms and its significant contribution to main assumptions from the approaches of Sustainable Rural Development (SRD), using the frameworks of Global Value Chains (GVC), Global Production Networks (GPN), and Short Food Supply Chains (SFSC).

About 25 stakeholders in the Romanian production system of peasants and their customers were interviewed in semi-structural interviews during 2017 and 2018 (Flick, 2011; Glaser & Strauss, 2017; McIntosh & Morse, 2015). The interviewees were farmers with different holding sizes, local, regional and national politicians, representatives of banks, consultants, and NGO representatives as well as representatives of processors and veterinarians located in the counties of Cluj and Maramureș. To contextualize the data from the interviews, secondary statistical data from the Romanian National Institute of Statistics and the European Commission have been used. Section 2 provides a theoretical framework of the GVC/GPN, SFSC, and SRD literature while section 3 contains a description of the Romanian farming landscape and relevant legislation. Afterward, the

role of trees for smallholders and their appreciation through national policy is elaborated. The article concludes with some indications on subsidy design and further research.

## 5.3 Short food supply chains and their role for sustainable rural development

To understand which mechanisms are fostering either SFSCs or GVCs for smallholder produce, the approaches of Global Value Chains (GVC) and Global Production Networks are a suitable framework. They help to understand globally happening processes of value creation, enhancement, and capture, and, at the same time, they are also helpful tools to understand local economic processes along a value chain and why SFSCs are competitive to GVCs in the agri-food business (Coe et al., 2008; Coe et al., 2004; Henderson et al., 2002; Lee et al., 2012).

In agri-food chains, the possibility of capturing value is unequally distributed. When coupled to global value chains, farmers are barely capable of capturing a lot of value as they have a bargaining power deficit towards the global sourcing intermediaries (Lee et al., 2012). The intermediaries themselves are disempowered against the retailing lead firms of their chains which have immense bargaining and market power. Retailing lead firms impose quality, quantity, and price standards on the intermediaries, while they themselves relocate the pressure towards the primary producers, who are additionally underlying the legal standards (Gereffi & Lee, 2012). Smallholders often do not have the capability or possibility to get out of such a position within their price pressuring GVC. SFSCs, as theoretically introduced by Marsden et al. (2000), can offer a solution to them to economically upgrade their business. An exception are the agri-food chains of quickly perishable goods such as raw milk where the coupling to global value chains is the best option for smallholders, as the intermediaries are constant buyers and processing standards within the EU tend to be comparably high (Douphrate et al., 2013; OECD, 2016; Reardon et al., 2009).

SFSCs are considered to have as few intermediaries as possible, from the producer to the consumer. A core trait is their traceability, for the consumers back to the producers, who are connected to a certain place of origin and qualities (Galli & Brunori, 2013). The food products from SFSCs are mostly lightly processed on-farm or unprocessed goods, while the processing is mainly coupled with lower perishability of the produce. The SFSC

framework neither has a maximal spatial radius of operation nor does it have a maximum number of links in the chains, as both differ relatively, depending on infrastructure, population density, the complexity of the goods, from region to region and product to product. In the smallholder agriculture of low populated areas, however, both numbers are expected to be rather low. The focus is set on the trustworthy relationship between consumer and producer, via the exchange of the good from that chain (Renting et al., 2003). These chains offer the opportunity to reconnect consumers to food-production and enable consumers to make consumption decisions based on information embedded with the product, such as the place of production, the people involved and their values as well as production methods (Chiffoleau, 2009). This detailed information also leads to relative scarcity in the market. Generally, there are three different kinds of distinguished SFSCs:

Firstly, there are face-to-face chains in which the consumers buy their food directly from the producer. Such maximum authenticity chains may end in farmgate and roadside sales, farmers market, farm shops, or pick-your-own sales and might be, after a trust-building phase, continued in online shops. Secondly, there are chains within spatial proximity, often ending at local specialist retailers such as butchers, restaurants, or hotels but also public institutions like hospitals and schools. Spatially extended SFSCs are marked by broadly known labels such as “Protected Geographical Indication” or “Protection of Designated Origin” (Kneafsey et al., 2013). Distribution, certification, and strong brand-names are usually connected to high transaction and investment costs, resulting in relatively large businesses running these networks. Thus, they are only a realistic framework for smallholder agriculture when the smallholders are organizing themselves in cooperatives or other networks of producers, such as customer supported agriculture or delivery schemes and driven by local food movements (Kneafsey et al., 2013).

While there are many coexisting definitions and descriptions of SFSCs, what they all have in common is that social, environmental, and economic benefits for the region are connected to them because economic and physical activities are concentrated within a region and the produced food is closely connected to organic farming practices (Kneafsey et al., 2013). Local stakeholders are fostered and interrelated through the SFSCs because

SFSCs create local employment opportunities, possibilities of knowledge exchange and supplies to local shops, processors and consumers. This adds value in outlying areas as it opposes fallow areas as well as an increasing ageing of the population caused by young people leaving the countryside (Roep & Wiskerke, 2012). SFSCs also keep created and added value at the production sites, and within local communities, as middlemen are circumvented, especially when the farmers can produce higher-value goods (Narrod et al., 2009). They also enable growers to diversify their production and sell products, which wouldn't be marketable otherwise because of low quantities or perishability. Economically viable smallholdings are, however, a result of farmers who are willing to work long hours; the knowledge of adding value to primary products and direct marketing; high yields per hectare; and product diversity (Alonso, 2011).

These production systems also foster the social capital within regions through keeping farming traditions and cultural heritage as well as enhancing the contacts between local producers. Moreover, the connection between producer and consumer is enhanced through providing ecologically produced food; giving an extra possibility for community involvement; and fostering the understanding of the connection between health, environment, and food, including high levels of animal welfare (Winter, 2003, Kneafsey et al., 2013). This can also lead to enhanced possibilities of agritourism (Marsden et al., 2000; Tanasă, 2014). Environmentally, these chains are connected to positive connotations such as low distance of transport as well as environmentally friendly production systems with high biodiversity and low inputs, including irrigation, chemical treatments and low pollution, and waste. Fulfilling main conditions of economic, environmental and social sustainability, integrated farming systems fit the framework of sustainable rural development (SRD) (Arato et al., 2017; van der Ploeg & Marsden, 2008; Kneafsey et al., 2013).

The framework of SRD (firstly introduced in 1998 to generate livelihoods for farmers as well as an agricultural sector able to supply food, fibers, and energy) is a suitable add-on to the GVC and SFSC approach to analysing the policy measures which concern smallholder agriculture as well as adding, not only political embeddedness, but also ecological, social, and cultural aspects (Carney, 1998; Shepherd, 1998; van der Ploeg &

Marsden, 2008; Galli & Brunori, 2013). Following the idea of SRD, the policy should try to foster the added income of farmers in order to oppose the 'price squeeze' on agriculture. Such a policy will empower farmers to create more value and generate employment opportunities. Further, it could enhance the relationship between society and agriculture, opposing the alienation of people from their food, which, in turn, could lead to better matching between agricultural production and the needs, and expectations of society. Furthermore, it could result in a redefinition and reconfiguration of rural resources (van der Ploeg & Marsden, 2008; Marsden, 2003; van der Ploeg & Roep, 2003).

Thus, fostering smallholders to generate value from SFSCs is a major contribution to foster SRD in the European Union. These goals are also implemented as a part of the Common Agricultural Policy (CAP) of the EU and need to be addressed by the member states, through adapting the national measures to the goals of rural sustainable development. This means to support smallholders in marginal areas to build cooperatives and young farmers to use environmentally friendly farming practices. Further, a prioritization of biodiversity and ecosystem services from farming is crucial. Payments should be granted only when public ecosystem services are an outcome of the farming process. Nonmarket valuation of ecosystem services and system-based approaches for payments to farmers are of major importance to guide European farming activities in a sustainable future (Nielsen et al., 2009; Pe'er et al., 2014; Plieninger et al., 2012).

## 5.4 The Romanian farming landscape and relevant legislation

Romania's share of 33.49% of the overall European holdings, representing only 7.47% of the EU's used agricultural area (UAA) is special and unique (Eurostat 2017a). This small parcel-based structure is politically considered a burden for agricultural productivity (Boboc et al., 2017; Feher et al., 2017; Gavrilescu D. & Gavrilescu, 2007). Table 3 shows the enormous relevance of smallholdings for the Romanian agriculture: They represent over 55% of Romanian plots but account only for 5% of the UAA; 42% of the landowners work 1-10 hectares, which accounts for 40% of the national UAA. The major portion of the 48% belongs to 0.4% of the landowners, who own over 100 hectares each. This development is a result of Romania's political history.

*Table 3: Farming landscape in Romania, 2013*

| Facility type | Size (hectares) | Number | % | Area (hectares) | % |
|---|---|---|---|---|---|
| Agricultural households | <1 | 2009290 | 55.3 | 652800 | 5.0 |
| Subsistence and semi-subsistence farms | 1-10 | 1531650 | 42.2 | 5269900 | 40.4 |
| Commercial family farms | 10-100 | 75640 | 2.1 | 832690 | 6.4 |
| Commercial farms (companies) | >100 | 13080 | 0.4 | 6300460 | 48.2 |
| Total | - | 3629660 | 100.0 | 130 | 100.0 |

*Source: Feher et al., 2017, p. 671*

With the downfall of the Ceaușescu regime in 1989, a consolidation process started, which was driven by the privatization of formerly state-owned land and several political decisions (Roger, 2014). In 1996, a law was passed prohibiting family associations to work on more than 200 hectares, this resulted in 10,300,000 hectares of household farms in 2001 (Dawidson, 2005). The agri-industrialization shaped the further development of Romanian agriculture. In 2013, over 97% (3,540,940) of the Romanian farms were smaller than 10 hectares, representing 45.4% of the UAA (Eurostat, 2017a; 2017b; Ministry of Agriculture and Rural Development, 2017).

Traditionally, these farms are high-value farmland with mixed crops, trees, and animals. After the foreshadowing of the accession to the EU, big parts of the small farms have been consolidated due to farm succession issues, milk-quotas, and high pressure on the producers of primary goods in agri-food chains. Thus, from 2005-2016, the number of holdings shrunk by 19.11% due to consolidation and rural exodus in the region Nord-Vest, which the examined counties of Maramureș and Cluj belong to (Eurostat, 2018). Still, as estimated by Beaufoy et al. (2015), wood pastures are the coverage of around 150,000 hectares in the state of Transylvania, which makes the silvopastoral systems substantial for the area of Maramureș and Cluj as this landcover is chiefly found in the mountainous areas of the southern Carpathians, and, with 49,9% of high value farmland which can be used almost synonymous in the Nord-Vest-Region, also the most important kind of

agricultural area in the region (Paracchini et al., 2008). The silvopastoral systems found there are grown traditionally and are closely connected to the history and culture of the rural communities, yet, legislation often works against these systems (Hartel, 2018; Hartel et al., 2016).

The Romanian directive 247/2005, called “renta viagera”, is a lifetime annuity system whereby smallholders can sell or rent out their land. It grants a monetary reward of € 50 per hectare for renting out and € 100 for selling (Ghib, 2008). Another legal burden for peasants keeping their systems is their classification in economic size, according to directive 37/2015. As the category for the smallest businesses starts at € 2,000 - € 49,999, farmers with less taxable economic output can neither access CAP measures, nor do they have access to national funding due to national design of the CAP. Instead, they are in the group of “Non-Observed/Non-Registered Economy” and consequently legally treated as “Undeclared Workers” (Redman, 2010). Becoming juridical persons requires farmers to demonstrate three straight years of supplying goods with a value of over € 2,000 to juridical persons, following law 3/2015. This is hampering the use of SFSCs in the tourism and gastronomy sector as farmers cannot officially invoice. The processing of milk to access SFSCs with Kashkaval and other dairy products is also hindered by the European regulations EC 852/2014 and 853/2014, imposing basic regulation, measurements, and hygiene standards for processing on-farm. The Romanian amendments force farmers to process at least 1,000 litres of raw milk per day if they want to sell in a wider radius than 36 km. This is unrealistic for smallholders with their per cow output of around 8l/day (Roger, 2014).

This regulation is accompanied by EU-law 88/2016 and the Romanian amendment 192/2017 which requires strict labelling on dairy products, including, among others, the list of ingredients, the exact weight, expiration date, fat content, and nutritional declaration, which is for smallholders only just possible to declare. Selling traditional Romanian liqueur, which might be produced for own consumption according to the Romanian home-distilling law 368/2008, also requires strict labelling. As the Romanian farming sector was not prepared for many regulations, supply from abroad took over. In contradiction of the before mentioned laws, the poorly enforced Romanian law 150/2016

dictates terms to supermarkets, whereby 51% of the fresh food products sold must be produced in SFSCs in Romania. Further, the trees, as well as shrubs and woodland patches on the pastures, are not eligible for direct payments under the Common Agricultural Policy (CAP) by the European Union. Therefore, they are neither considered to be valuable assets for agricultural production nor of social-ecological importance in the Romanian interpretation of CAP measures (Hartel et al., 2016, Hartel et al., 2014; Hartel, Plieninger et al., 2015).

Moreover, Romania tries to stop the formerly institutionalized black market through police operations aimed at street vendors and farmer markets to comply with EU requirements (Roger, 2014). The black market and informal structures traditionally play a huge role in Romania, even though it is statistically barely mappable. However, as informal activities are mentioned in a majority of case studies and business reports on agriculture, as well as in the interviews leading to this study, they can be seen as broadly affecting smallholders in their production and distribution activities with reports ranging from land- and forest-grabbing, illegal logging, undeclared work, to black-market sales and to corruption in politics and the police (EcoRuralis, 2015a,b; Trauner, 2009). The farmers are both positively and negatively affected through infrastructural problems, corruption, bad access to subsidies, volatile costs of public services, law enforcement issues, unclear land rights, deals with local authorities, and veterinarians (Roland & Verdier, 2003).

## 5.5 The role of trees for value generation in silvopastoral systems of the Romanian Carpathians

Traditionally grown mixed smallholder farms are (almost) closed-circle agricultural systems which mainly consist of extensively farmed wood pastures. On the approximate 3-15 hectares sized holdings, a comparably small section is allocated for potatoes, corn, cereals, and vegetables, which is primarily used for self-supply by the farmer's family. The rest of the farm typically consists of pastures with scarce trees and shrubs, sometimes added to by small patches of orchards and woodland. Within these silvopastoral systems, the main livestock is cattle, whereas sheep, goats, occasional poultry and, infrequently, pigs can be also be found. Diverse trees within the semi-subsistence silvopastures are

mainly plum trees, apple trees, pear trees, birches, oaks, hazel, hornbeam, and spruce while other species can rarely be found which results in outstanding biodiversity and diversity of possible products. The trees of different ages are usually found as single trees, in small groups, or as hedgerow elements, and thus allow for different species to use them as nesting or breeding place as well as fodder source. Usually, they are managed in a way, that allows constant regrowth and goes along with time-intensive management effort.

*I do not feel like the wood stock is shrinking, because we have a good regeneration rate on the farm and don't cut too much. We have a lot of young trees, which need to be cut. (Farmer 7)*

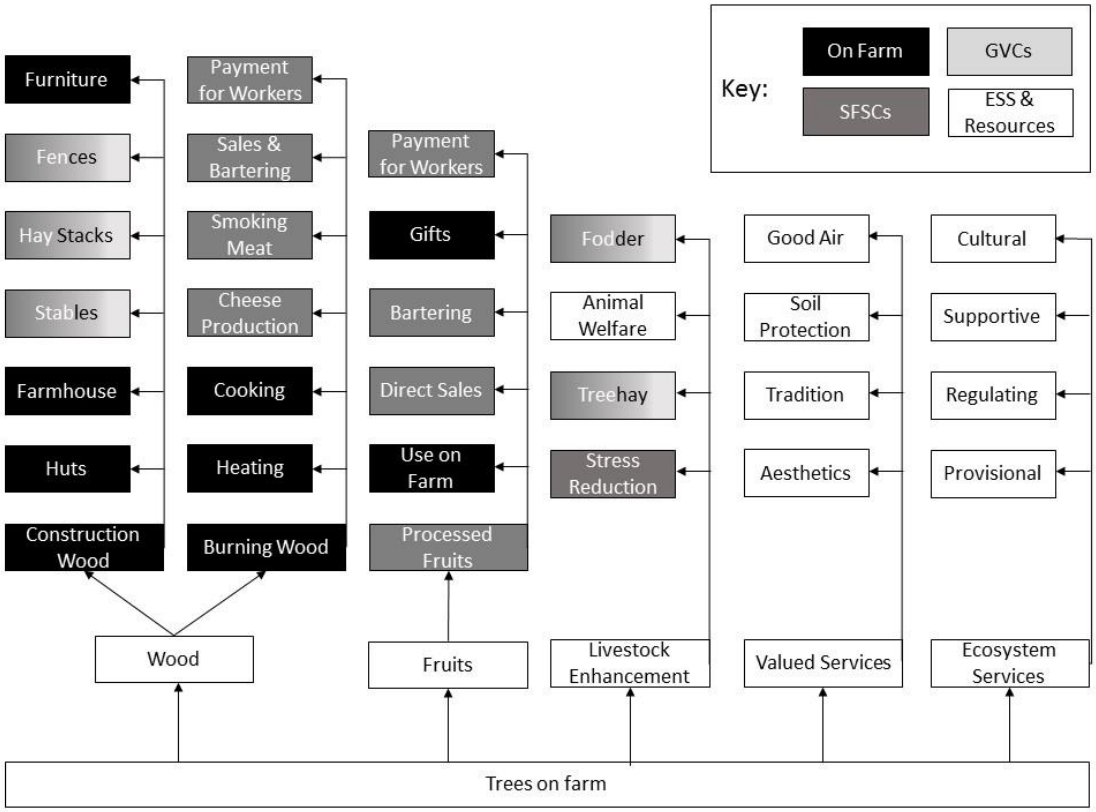
Traditionally, more than 50% of farm produce is consumed on-farm, whereas most surplus is sold via informal SFSCs. The only product that is partly sold via GVCs is raw milk because it is transported by the farmers to collection stations, which are managed by globally sourcing dairies such as Napolact (a division of Friesland-Campina, Netherlands) and La Dorna (division of Lactalis, France). To be a supplier to these firms, farmers must deliver constant quality in comparably high quantities, which puts a lot of pressure on them and leaves them with little bargaining power. Despite the limited income available on farms, with additional subsidies available after a 3-year contract of constant supply to licensed buyers following law 37/2015, many farmers are willing to accept the pressure of missing income opportunities because their traditional SFSCs are not fostered by national or supranational regulations.

*We feel a high pressure to produce more milk. It is about the quantity. The prices are made according to quality and mainly quantity by Napolact. (Farmer 2)*

Still, processed milk, in the form of cheeses or dairy products, is distributed via SFSCs. Including the processed, slower perishable milk, all produce other than milk is an integrated product, following Hendrickson (2008). Such produce ranges from fruit products (liqueur, syrup, marmalade) to meat preparations (sausage, cured meat, smoked meat) to dairy products (drinking milk, butter, yoghurts, fresh cheeses, hard cheeses) and to timber. Although these products are mainly consumed on farms, their direct sales still account for the biggest part of monetary income for the peasants. They

are sold either to friends and neighbours or via peasant markets, street hawking and local fares, where selling prices are 30% -200% higher than those obtained when selling to intermediaries (FAO & European Bank for Reconstruction and Development, 2007). Moreover, goods are often used to pay dayworkers, who are helping on the farm. As depicted in figure 5, trees located on the farm are enabling the production and value generation of most of these goods.

*Figure 5: Tree-related goods and their purpose*




*Author's own elaboration*

To clarify the importance of trees for SFSCs accessed by smallholders, goods and services obtained from the trees are described in the next section.

### 5.5.1 Products and services obtained from the trees and their value chains

The multiple goods and services which are provided by the trees of the farm are crucial for a traditionally strong cultural identity (Hughes, 2008), food sovereignty, economic resilience, and the value creation of smallholders via SFSCs. Furthermore, trees provide multiple ecosystem services (Fagerholm et al., 2016). Firstly, wood is used to construct, repair and expand necessary buildings and furniture on the farm, thereby improving the

living standard of the farmer's families. As figure 5 shows, wood is also used to build haystacks, fences, and stables to enable value generation through raising livestock. Moreover, hedgerow elements are also used as fencing for livestock. The second purpose of wood is to be burned – on one hand, to deliver heat for milk processing, cheese production, cooking, and heating, which is crucial as many farmhouses are not connected to the gas grid. On the other hand, the smaller, more humid and barkier parts of the wood are burned to produce heat and smoke, which is used for curing and smoking meat. Additionally, wood is sold during money shortages to wood processors, who clear the pastures, as well as salaries to the workers, who are hired on certain days for clearing the pastures or cutting trees. Consequently, trees enable the creation of jobs in the region and provide resilience to farmers, which enables them to deal with on-farm problems and market shocks. Finally, woody materials can be sold either to local carpenters, other farmers or processors in the area. Thus, it plays a major role in several dimensions of SRD and SFSCs. Wood also contributes to farmers' resilience through ensuring an independence of energy prices as well as creating a reserve in times of bad harvest or financially difficult situations. Wood processors that need a supply of rather low-quality material for producing pellets and briquettes for heating create yet another value stream from trees

*I sell some wood, but not all at once. Just some wood, when we need money and leave it regrow. But mainly I use all the species, which are not of forestry or orchard interest. I use it for smoking meat products and heating the houses.*
*(Farmer 8)*

The second produce provided by trees are fruits, mainly plums, pears, and apples. Apples or pears. are the base for the traditionally distilled liqueur "Tuica" and "Rachiu". Both liqueurs have major importance for local festivities, everyday consumption, as gifts for friends and family, and as payment for workers. Liqueur is produced on almost every farm and is a big part of the local cultural identity and it is typically distilled from traditional knowledge and without hygiene controls. The home distilling law 368/2008, however, makes it almost impossible to enforce laws against selling unauthorized produced liqueur. Fruits are also processed into syrup and marmalade to make them durable for

the winter. These goods are traded via existing SFSCs or consumed on-farm and are sold as delicacies to restaurants and hotels which want to provide authentic regional cuisine. Consequently, fruits contribute to a broader product portfolio which allows smallholders to be economically more resilient and, at the same time, keeping their cultural values and traditions alive as well as connecting consumers to producers.

Although fruit products, such as syrup, jam, and liqueur, are not valued by governmental payment schemes, they are important sources of income and a commonplace product, found on every peasant market in the area and sold by street hawkers. Buyers are locals and tourists. The sales of these goods also attract a group of people who grew up, or used to live, in the mountainous areas of the Carpathians and have a personal connection to the taste of their childhood. Local gastronomy and hotels buy products on a regular basis, relying on trust-based oral contracts and thus contributing to the local SFSCs. In this way, local identity, the tourism sector, as well as social cohesion is strengthened. Moreover, trees, particularly oaks, provides the radicular prerequisite for the growth of truffles and porcini, which are an important ingredient for many traditional dishes and can be sold for high prices to local gastronomy outlets or via other SFSCs.

*I do jam, palinka and syrup. All traditional, no inputs and I sell it because there is a very big demand from gastronomy and private people. With my trees, only the plum jam is 40% of my yearly income. In the future, I want to plant more plum trees. (Farmer 9)*

Thirdly, on-farm produced, local, traditional cheeses like Kashkaval as well as smoked and cured meat are prepared with the heat and smoke of burned woody tree cutoffs, and are the main products sold via SFSCs. It is usual for farmers to buy each other's products or barter with their goods, as product diversification, on individual farms, is rather low. Thus, the rural population has a considerable choice of dairy, meat, and fruit products, in addition to home-grown vegetables and grains, which creates the possibility of a balanced diet. Local SFSCs are marked by trust-based relationships via neighbors and friends. At street markets, the suppliers, as well as the buyers, are underlying constant change, which leads to rather price-based buying decisions. People are brought together both at markets and via trust-based relationships and this may lead to a reduction of

prejudices towards each other. This can be regarded as highly important in a post-socialist society in which mistrust and grudges are still present in people's minds dating back to the days of denunciation and political pressure in producer cooperatives. This also hinders farmers from getting a common certificate or label as a marketing and quality sign. Furthermore, farmers have diversified products, which is considered highly important for them to be resilient to bad cropping years, disease and other incidents and to guarantee food security in the rural areas. Additionally, trees contribute to animal welfare, as animals naturally groom and like to rub on the trees and have sun-, wind- and rain-protection which moreover leads to stress reduction resulting in less fodder consumption (Kadzere et al., 2002; Kohari et al., 2007).

*Basically, for the young cattle [having trees on the farm] is really good, they eat it, they scratch on it, they have shadows, it regulates the microclimate, it is excellent. It is good for their stress protection, from wind, tree, rain, sun and so on.*
*(Farmer 7)*

While these traditional growing and trading practices are contributing to many SRD and CAP goals through their connection to SFSCs, recent legislation, local institutions, and foibles, as well as the demographic development in the rural Carpathians, are hindering the prospering of these systems.

### 5.5.2 Obstacles for SFSCs

Informal structures are the main threat to these fragile integrated farming systems. Illegal tree felling by the smallholders, to have a non-recurring possibility of income, and by wood-thieves are common in the area, as the inhibition level is lowered through well-known industrial illegal logging cases (EcoRuralis, 2015). Law enforcement against theft as well as illegal cutting of stems with a diameter of more than 6 cm without permission is almost non-existent in the rural areas of Cluj and Maramureș. Getting selling permissions from local authorities is connected to bureaucratic obstacles and arbitrariness. The interviews showed dependence on the likeability of the public authorities towards the farmers. However, prospective legal buyers expect farmers to care about the necessary documents.

*Because you can use this kind of biomass, but the forestry department has crazy regulations about it. If the wood is thicker than 6 cm, you need a permission and a certificate. […]. As a company, I have to take it really serious, but normally people do not. (Pellet & briquette producer).*

This leads to reckless felling of single trees and wood patches on the farms, even at holdings in the national park of Maramureș, which is a refuge for wildlife, traditional farming forms, and plants. The quick monetary returns for the small amounts of wood are a source of income for many farmers while some reported to lose up to 1,000 RON (200€) per year through illegal logging by others.

*The foresters are corrupted, and they are collaborating with the people who cut the trees because they pay them well. And if you go to the police and tell them, that something is happening they will tell you: "It is not our business! It is your business, deal with it!" […] Everything is connected and shady, we cannot do anything legally against it. (Farmer 10)*

While informal structures hinder farmers in keeping their systems working, the distribution channels for SFSCs are changing as well. As a result of having to meet European Union demands, selling without business permission is recently increasingly hindered by police appearing at street vendors and farmer markets. Thus, the farmer markets are switching their appearance. The transaction costs for administrators are much lower and legally uncritical as long as they choose suppliers who can be relied on to supply the same goods at the same quality, and bought at the food wholesale from industrial producers every day.

*The private administrators will choose now the people that are always there, no matter what. The peasants cannot always be in the market, so the private administrators chose the retailers who buy from the wholesale food markets and that is how you get to this kind of other framing of what is a peasant market. (Representative of EcoRuralis)*

Additionally, land rights are not clear or written down by the authorities but traditionally grown, and locally known and accepted. This hampers law enforcement for the

smallholders when others fell on their land and, therefore, triggers farmers to clear the pastures themselves, and receive the monetary benefits. Farm succession is another disabler of the existing systems. Many farmers do not have children to overtake their farms. Long term investments of tree care and reforestation are not attractive for farmers because this incentive is missing, and farm succession is unclear. Further, national politics with measure 3/2015 and "renta viagera" tries to foster the consolidation of land to bigger, industrial farms. Payments for clearing pastures by the national subsidy agency, APIA, are further triggering the passing of these unique farming systems.

> *People do not have legal forms on their lands, also on their forests. Thus, maybe 10% of the population have legal forms on their lands so if somebody steals from your land you cannot have justice and enforce your rights because it is not legally yours and it is just old rights on it. (Farmer 7)*

Furthermore, many farmers do not know about the possibility of getting funding for their farms. Most of them are only using CAP subsidies per animal and per hectare. Terms like "silvopastoral" and "agroforestry" are neither known among farmers nor the local representatives of funding agencies. Farmers are consequently not capable to demand fostering of their unique systems from the funding agencies and the ministry of agriculture. Thus, the own valuation of the system goes along with the missing valuation by the state. The CAP does not recognise several features such as large, old trees, and shrubs of unique cultural, social and ecological value which are crucial elements to the smallholders' farming systems and eligible for subsidies. As these trees on pastures are seen as a burden to profit maximization in farming activities, the farmers are triggered to clear them and downgrade the biodiversity and socio-ecological value of their plot. Still, CAP argues that it should help reconnect agriculture and socio-ecological systems. This leads to the conclusion the editors might have assessed the value of these trees incorrectly. There is no category between "forest" and "pasture" which is eligible for grants for the Romanian adaption of CAP when fostering smallholders on silvopastoral systems, (Hartel and Plieninger, 2014; Hartel et al., 2016).

*Another subsidy would be great for woodland for this land category, we just have forest or grassland, we don't have anything in between, not even a word. A subsidy in that direction would also show people, that we are aware to need something in between. (Farmer 7)*

### 5.5.3 Removal of woody elements and passing of SFSCs

Because of these obstacles, missing valuation and fostering of trees, their provision of ecosystem services and the connected SFSCs, the integrated farming systems are changing their appearance. Farmers increasingly see raw milk as the main and only product to earn money with. However, it is the only good which is sold to globally sourcing multinational dairies and which is also able to be produced in less diverse and ecologically friendly systems. The trees are cut down either illegally, as described in the prior section, or cut down by processors who use the cleared wood as input product.

Lately, a new business model was developed in the area. Based in bigger cities like Cluj-Napoca and Baia Mare, nearby customers who are often public pools, schools, hospitals but also companies and private households are based. The processors offer the farmers to clear their pastures without monetary payment while taking the cleared material with them as a resource for wood fuel. This opens up a long value chain for farmers, which has multiple short- and long-term implications. Many farmers do not have enough workforce on their farm due to the ageing communities. Thus, the "free" workforce is welcomed by most farmers. This leads to pastures being cleared within a radius of 150 km around the cities. However, that process also leads to a structural downgrading of the land, concerning the principles of sustainable rural development, and the farmers' access to SFSCs because afterward many inputs for the traditional goods are no longer sufficiently available. The processing is a short-term business model as reforesting is not common among smallholders, as described above. Recently, there has been enough supply but with shrinking land population and no reforestation, supply will scarcen in the long run.

*Many want to get rid of [the wood] because, for this land, they don't get any subsidies. So, I do not know anybody doing [afforestation]. (Farmer 11)*

Adaptability to these developments is difficult for many peasants as they are locked into old patterns of production and are not open to any change in their production system. Moreover, many smallholders do not have an overview of the market, lack economic education and knowledge, as well as the willingness to do accounting which is not pushed for by policy measures and are, therefore, criticized by younger farmers who had the possibility to study agronomy or similar subjects at a university. This, and the mistrust towards each other, also hinders new distribution channels such as “pick-your-own” or web-based “green-basket” customer supported agriculture schemes. The communist history of forced cooperatives, moreover, impedes the formation of smallholder cooperatives.

> *So, the older farmers think, [processing the plums] is not worth it. They prefer to sell the plums instead of the jam, that is why they do not do it. They do not know where or how to sell it. (Farmer 9).*

The harder accessible distribution channels, and missing farm successors, restrain current owners from investing in afforesting, which pays off financially only after 30-50 years. Combined with the unwillingness and missing capability to diversify the product portfolio, missing enforcement of law 150/2016 and strict hygiene regulations for processing on-farm the pastures are cleared more and more by the farmers. After all, the majority of decision-making comes down to accessing subsidies. Even though the traditional integrated farming systems are favorable for many dimensions of SRD and the goals of the CAP, there is no Romanian subsidy or payment to support these systems as the national political goals for the development of agriculture guide in the direction of industrial conventional farming. Missing land rights, hampered distribution channels, existing inducement to clear these systems, limited knowledge on subsidies, and illegal felling are threatening the silvopastoral systems that enable many of the 97% of Romanian smallholdings to access SFSCs. Instead, pastures are cleared to generate short-term income and consolidate and industrialize farming activities.

## 5.6 Conclusions

Selling produce from integrated farming via SFSCs is part of traditional Romanian smallholder agriculture and necessary to foster the economic, social, and environmental goals of the CAP and SRD. However, legislation, informal structures, market trajectories, as well as law enforcement and misdirected subsidies hamper smallholders' access to the connected distribution channels of farmers' markets, street vending and sales in spatial proximity. This forces farmers to clear their pasture or even give up their businesses. The land is sold or rented out to industrial agriculture, foresters and other consolidating stakeholders, who are specializing their agricultural work on very few crops or livestock while neglecting and destroying the social, economic, and environmental ecosystem services provided by the traditional farming systems.

At the same time, the goals for sustainable agricultural development, set by the EU and anchored in the CAP, are meant to prevent the downfall of agricultural systems like the no- to low-input wood pastures in the Carpathian Mountains of Maramureș and Cluj. They are preserving cultural heritage, creating a stronger bond between consumers and agricultural producers, and are also contributing to the resilience of smallholders (Hartel et. al 2016; Hartel, 2018). Further, they provide a multitude of ecosystem services. Thus, it is important to support policymakers with the analysis of these and comparable integrated farming systems, complemented by their socioeconomic and environmental values. To keep these systems working, subsidies must be designed to preserve relevant trees on the farms and to facilitate SFSC access for smallholders. This probably also means providing a subsidy system which is partly based on valuing eco-system-services, provided by farming systems, in a monetary way instead of enabling processes such as the clearing of wood-pastures by processors in order to have short-term benefits and job-creation through destroying these traditional farming systems. Else, the enablers of these unique systems, the trees, will further be cleared.

Additionally, the positive effects of their farming systems must be communicated to the farmers themselves as they seem to overestimate the negative effects such as less space for subsidy granting pastures and the acorns eaten by the animals. The implied ecosystem services are often perceived as side-effects and a question of aesthetics by farmers and

other stakeholders along the value chain and treated as relatively unimportant, while going along with the ability to produce multiple goods to be economically resilient and to minimize the dependency of single prices of the global food commodity market. The discrepancy of CAP, which wants to foster the reconnection of the rural societies to nature and farming activities within the Rural Development Program, on the one hand, and the adaptation of the regulations to the Romanian setting, on the other hand, is striking and thus not goal-oriented. Consequently, the national context must be freer to specify the CAP according to national needs.

These needs must be specified more precisely and better communicated between the smallholders living far off political decision making and those who make these decisions. This can be fostered by strengthening local movements and cooperatives which are trying to solve the problems of the traditional peasants, by enhancing the communication between NGO's, companies, and policymakers and through supporting decision making with further research. Such research should focus on traditional farming systems, integrated agriculture, the quantification of environmental, and socio-economic effects in an EU or even global context. A special focus of qualitative research should be set on understanding the processes that follow the rural exodus and the social dimension of that megatrend.

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# 6 No farm succession – no problem? A case study from Transylvania, Romania

## 6.1 Abstract

The Romanian farming sector is marked by subsistence and semi-subsistence farms, with the average age of farmers constantly rising. At the same time, many peasants quit farming for better-paid jobs or because of age and often, they find no successor for their land. This leads to many small plots of land being abandoned or owned and worked by others. In the remote Carpathian Mountains, the consolidation pressure from global industrial farming enterprises is still low, which leaves place for other land fates. This article focusses on the push and pull factors of prospect successors who take over their families' business and on the fate of land, when intra-family successors are found. Methodically, the research is grounded on over 25 semi-structured interviews and previous meta-studies. While the resource-based view and a literature review on farm succession studies are used to understand the reasons behind (no)-farm succession, the fate of the land is theoretically framed using the concept of embeddedness from the discussion on Global Production Networks. Here it is argued, that societal and network embeddedness play a substantial role for both, the resources which determine farm succession and the fate of the land, when no successor is found.

## 6.2 Rural exodus and its implications

Maintaining biodiversity in agriculture is a major challenge for politicians as well as agro-environmental practitioners and has thus far been one of the main targets of the European Union Biodiversity Plan 2020. Further, a need to support biodiversity securing mechanisms is enshrined in the 2050 EU Biodiversity Vision (European Commission, 2011). Biodiversity is connected to species protection and multiple ecosystem services, both of which are also crucial for human well-being and, in the long term, for economic prosperity (Munteanu et al., 2014). In addition to biodiversity, employment and the transition from rural to urban population, as well as keeping traditional farming practices and their conservational, environmental and social value generation in place, are important topics of the political and scientific discussions on agriculture (Calus et al., 2008; Grubbström & Eriksson, 2018).

Crucial to these agricultural issues is the topic of farm succession, which is often endangered through other income generation possibilities because of high labour mobility and easily accessible information on the labour market for potential successors. As a result, potential successors often decide to leave the countryside behind. This movement is empirically positively correlated to the size of farms and the remoteness of holdings, which makes family farming businesses in remote areas a highly endangered kind of farms (Suess-Reyes & Fuetsch, 2016). With over 97% of Romanian farming business being subsistence and semi-subsistence family farms, farm succession appears of high importance when approaching the challenges of future-oriented agriculture. Smallholder agriculture generates the most jobs in Romanian agriculture and keeps biodiversity high because farming there is usually done in low- to- now input systems, using traditional farming forms and systems (Feher et al., 2017; Hartel et al., 2016).

In Romania, an eastern European post-socialist country, the transition phase is regarded as special because it is affected by multiple specificities stemming from the former political system (Griffiths et al. 2013). This special way of regarding agriculture also stems from the unique farming structure in Romania (Feher et al. 2017). Representing 33.49% of the European agricultural holdings and 7.47% of the European Union's agricultural area (Eurostat, 2017), the current farming landscape in Romania is highly scattered and compartmentalized. Rural exodus and missing farm successors are a recent phenomenon in European agriculture, especially among smallholders, (Terres et al., 2015; Graeub et al., 2016). To foster socially and environmentally sustainable agriculture, it is crucial to answer the questions of (1) what determines farm succession and (2) what happens to the land when there is no successor from inside the family found.

As the existing body of literature shows, multiple studies have already been performed on land-use change, using geographical information systems, spatial analysis of land cover and official statistical data (Muntenau et al., 2013; Kuemmerle et al. 2008; etc.). Additionally, multiple case studies are dealing with question (1) the determinants of farm succession, as illustrated by a literature review by Suess-Reyes & Fuetsch (2016). Question (2), what happens to land after abandonment through a socio-economic lens, has so far been only addressed by very few studies (Joosse & Grubbström, 2017;

Grubbström & Eriksson, 2018). This study aims to add to the question of succession determinants and, moreover, to open the 'black box' of the fate of the land after abandonment by the farming family, as suggested in Grubbströms' work. Therefore, a case study of the remote rural area of the Carpathians in Transylvania, Romania is used. The framework of the resource-based view (RBV), as first proposed by Mahoney & Pandian in 1992, will be used to understand succession trajectories.

The analysis tool of embeddedness, following Henderson et al. (2002) on the discussion of global production networks (GPN), will be utilized to analyse the socio-economic processes after land has been abandoned. The data used in this work has been collected through 28 semi-structured, in-depth expert interviews with different stakeholders in smallholder farming. They included farmers with differently sized holdings, national and regional politicians, representatives of banks and NGOs, processors, and veterinarians located in the counties of Cluj and Maramureș. Little statistical data and existing research are available on this topic, therefore, this methodology was chosen to grant an in-depth understanding of the complex underlying processes, which also reach deep into informal activities and corruption (Flick, 2011; Glaser & Strauss, 2017; McIntosh & Morse, 2015). Additionally, secondary quantitative data from the European Commission and the Romanian National Institute of Statistics have been used to support the qualitative primary data.

## 6.3 The resource-based view and embeddedness in peasant farming

According to Suess-Reyes & Futsch, who screened scientific publications on farm succession published between 2000 and 2015 (2016), there is no continuity of used theoretical frameworks in studies on family farm succession. However, most studies use the resource-based view (RBV) to explain the processes around farm succession. The RBV helps to explain economic success, connected to the specific resources that are available and managed by an enterprise. The question which can be approached and answered with the RBV is "why […] some firms [perform] better than others?" (Barnett et al., 1994, p. 11; Barney, 2001). In general, it is argued that actors must be able to manage and use these resources optimally use these resources to get a sustained competitive advantage over other competitors. As Mahoney & Pandian (1992) pointed out, valuable, rare,

inimitable and non-substitutable (VRIN) resources help to create competitive advantages in the business. Resources are thereby differentiated as tangible and intangible resources, with the latter considered more unique, of high social complexity and thus more important for the competitive advantage of a business (Allee 2008). In family enterprises, the main resources are social capital, human capital, survivability capital, patient capital and governance structures (table 4) (Sirmon & Hitt, 2003; Petrů & Havlíček 2017). The more VRIN resources are available and manageable on the farm, the more like farm succession will be.

*Table 4: Most important resources in family farming*

| **Resource** | **Context in family firms** | **Context in smallholder farms** |
|---|---|---|
| **Human Capital** | - Knowledge, skills, time and capabilities for unique and novel actions (Coleman, 1988)<br>- Duality of family and business relationship<br>- Suboptimal employees because of limited choices<br>- Difficult to integrate outsiders in business (Sirmon & Hitt, 2003) | - Extraordinary commitment<br>- Deep, unique, land-specific tacit knowledge<br>- Early, direct, knowledge transfer through exposure and experience (Lane & Lubatkin, 1998)<br>- Gender preferences (Glover, 2014)<br>- Missing workforce (von Oppenkowski et al., 2019) |
| **Social Capital** | - Relation between individuals or organizations<br>- Affects interfirm resource exchange, creation of intellectual capital, interfirm learning, supplier interactions, product innovation (Adler & Kwon, 2002)<br>- Cognitive dimension: Shared language and narratives<br>- Relational dimension: Trust, norms, obligations | - Relations to other farmers, cooperatives, buyers, and local authorities<br>- Affects market access, access to machinery, innovativeness, regional trends of production, and livelihood<br>- Cognitive dimension: Narratives of succession, collaboration, policy perception, success, and importance of “home”<br>- Relational dimension: Recurring transactions, informal, traditional land rights, subsidy choice |

| | | |
|---|---|---|
| **Survivability Capital** | - Pooled personal resources which are loaned, contributed and shared for the family business (Haynes et al., 1999)<br>- Larger pay-outs and revenue streams for a growing business<br>- Long survival enhances access to institutional finance<br>- Huge costs for firm failure (Sirmon & Hitt, 2003) | - All family members living on the farm are helping with high working hours<br>- Children are often involved early<br>- Growing the farm leaves more money for education of children and farm expansion<br>- Long survival enhances traditional land rights, knowledge of the land, and arm-length business relationships |
| **Patient Capital** | - Long-term invested money, low- to no risk of liquidation<br>- Higher capability to pursue creative strategies<br>- Long-term horizon<br>- Limited access to external capital (Sirmon & Hitt, 2003) | - Farmhouse and land as a stable property<br>- (Very) low degree of mechanization<br>- Long-term horizon which is only applicable, if succession is clear<br>- Limited access to loans via banks |
| **Governance structures** | - No- to low governance costs that result in highly desirable economic structures | - No governance costs, but subsistence<br>- Lock-in effects through missing input from inside the farm |

*Author's elaboration based on Suess-Reyes & Fuetsch, 2016*

The combination of the business and the family, also called "familiness", is hard to replicate and is, therefore, a unique resource and important to take note of (Suess-Reyes & Futsch, 2016; Habbershon and Williams, 1999; Weismeier-Sammer et al., 2013). As suggested by a broad body of literature, family firms and family farms are more likely to be overtaken if the resources, depicted in table 4, of the farming business, are as valuable, rare, inimitable and non-substitutable (VRIN) as possible (Suess-Reyes & Futsch, 2016; Barbieri, 2010; Barbieri et al., 2008, Meert et al., 2005; Lambrecht et al., 2014; Glover & Reay, 2015, Kerbler, 2012; Grubbström & Sooväli-Sepping, 2012). The aim of this paper is not only to explain why, or why not, family farms are succeeded and inherited within a family but also to understand why certain processes start when land is not inherited intra-

familiar and, therefore, another theoretical concept is needed that is more actor than resource focused.

Multiple political, economic and social factors determine whether the land is abandoned, kept, rented out, or sold. In addition, these factors are critical to the question of why land is worked and for what reasons it is sold or rented, and to whom. Thus, the concept of embeddedness, from the global production network debate which uses an actor-centred perspective, is a suitable add-on to explain what happens to the land when there is no succession taking place within a farming family. Using the concept of embeddedness helps to theorize the ideas of Grubbström and her colleagues, who started to work on this topic without a theoretical framework while researching the underlying values of decision-making by retiring farmers. Their results, however, showed that values, aside from monetary assets, are the main influence factors (Grubbström & Eriksson, 2018; Howley et al., 2015).

According to the theory of global production networks embeddedness consists of three different forms, which will be clarified in this section, and thus contradict the widely formulated criticism on the fuzziness of the concept of embeddedness (Rainnie, Herod & McGrath-Champ, 2011). Territorial embeddedness is especially important in agriculture, as the worked land and the farming family are highly connected to each other and ownership over generations as well as patient capital result in localized manifestations (Hess, 2004; van der Ploeg, 2014; von Oppenkowski et al., 2019). Thus, agricultural territorial embeddedness evolves over a long time period and leads to incumbent actors, fixed informal land rights, steadily repeating (sometimes informal) actions between stakeholders and certain products and qualities (Bowen, 2010; Roger, 2014).

The second notion of embeddedness is societal and consists of the historically shaped strategies, actions and perceptions of stakeholders. Societal embeddedness represents the national, regional, local and personal culture of involved actors (Hess, 2004; Hess & Coe, 2006; Rainnie et al., 2011). In the context of smallholder farming and farm succession, it involves rural livelihoods, patterns of production and consumption, and the perceptions of agriculture by itself, policymakers and other citizens (Hughes-Wrigley, & Buttle, 2008). Social and patient capital, as well as governance structures, are strongly

socially embedded and thus, societal embeddedness is expected to influence farm succession and the fate of the farmland enormously. It might also be influenced and changed through joining the information of different generations, farm sizes and cultures (Henderson et al., 2002; Men, 2014).

The third form is network embeddedness, which depends on the quality of connections between actors who impact each other. This includes, on the one hand, communications around the bundled interests of farmers towards policymakers and, on the other hand, relations between farmers and local authorities, customers, dayworkers and most importantly, other farmers and firms who are prospective buyers or renters of land. In post-socialist countries, such as Romania, the network embeddedness is especially emphasized as resentments from farmers towards politics, and towards each other, are still in place, because of denunciation and compulsory charges in the times of the Ceausescu-regime (Bowen, 2010; Roger, 2014). Consequently, the concept of embeddedness describes vertical as well as horizontal components of the farming network, simultaneously. The concept also helps to understand what happens to the land after abandonment by the original farming family, as well as resulting developments, which are theoretically grounded in the GPN framework (Henderson et al., 2002; Hess, 2004; Sonnino & Marsden, 2005).

The processes of disembedding and embedding will be understood as deterioration or respective improvement of these specific notions in agriculture. Territorial disembedding in smallholder agriculture is expected to be an important factor as the takeover of patient and survivability capital, such as land, market outlets, and water leads to the deterritorialization of the farmers. Often it is driven by unclear rights to lands and political ambitions of land consolidation, simplifying the market entry for agro-industrial actors with plenty of financial capital (van der Ploeg, 2014). Societal embedding happens, for example, when family farming is perceived as socially desirable by the younger generation, and, thus, happens despite economic difficulties. Societal disembedding happens when, for example, the perception of smallholder farming by other actors deteriorates. Network embedding can be enforced through the building of cooperatives, which might improve the possibility for certain farmers to overtake land when there is no

intra-family successor. Network disembedding, in smallholder farming, takes place, for example, when existing, informal distribution channels are no longer accessible through political change, while new distribution channels stay closed due to the economic situation of smallholders (von Oppenkowski et al., 2019).

## 6.4 Romania's holding structure and relevant legislation

To understand the situation of the Romanian agricultural sector, as well as emphasize the importance of farm succession for Romanian agriculture and its sustainable development, the striking farm structure is depicted in table 5, and is of major importance. The smallest agricultural holdings of up to 10 hectares represent 97% of the overall holdings, yet, they only comprise of around 29% of the used agricultural area (UAA). Commercial farms, held by families and companies, work the other 71% of the UAA while only representing 2.6% of the overall number of holdings. This bipolar structure is a result of, and typical for, post-socialist countries and their agricultural development in that transition phase towards a country with industrialized agriculture (Kuemmerle et al., 2009).

*Table 5: Farm structure in Romania, 2016*

| | ***Size*** | ***Number*** | ***%*** | ***UAA (ha)*** | ***%*** |
|---|---|---|---|---|---|
| ***Agricultural households*** | *<2ha* | *2,480,779* | *72.5%* | *1,547,680* | *12.4%* |
| ***Subsistence and semi-subsistence farms*** | *2-10 ha* | *854,200* | *25.0%* | *3,352,080* | *26.8%* |
| ***Commercial family farms*** | *10-100 ha* | *74,740* | *2.2%* | *1,626,320* | *13.0%* |
| ***Commercial farms*** | *>100* | *12,310* | *0.4%* | *5,973,450* | *47.8%* |
| ***Total*** | *All* | *3,422,030* | *100.0 %* | *12,502,540* | *100.0%* |

*Source: Author's calculation based on Eurostat, 2018*

At the same time, age-related statistics of farmers show that farm succession will be a crucial topic in the years to come. While young farmers in the age of under 35 manage around 105,000 farms and are working around 643,000 hectares of land, they are clearly

outnumbered by the 2,281,020 farmers who are over 55 and work 5,820,720 hectares. The generation between ages 35 and 55 consists of 1,032.630 farms on 4,552,720 hectares. The trend in farm size since 2005 is, however, rising in holding size, while the average age of farmers became higher, and was at a state of 65 years in 2016 (Eurostat, 2018). Consequently, over 50% of the UAA is worked by farmers who need a successor in the nearer future, yet, successors are rare. As multiple studies report, the decline of family farms goes along with an ageing farming population, ongoing urbanization, and consolidation of land. Thus, more and more farmlands get vertically integrated into global value chains, while the overall UAA is shrinking due to land abandonment and missing successors (Feher et al., 2017; von Oppenkowski et al., 2019; Hartel et al., 2016). The smallholders in the Carpathian Mountains, who the object of this study, normally own between 0.5 and 5 hectares, rent another 2-15 hectares, and use the communal pasture which is still an important part of the rural life in Romania and one of the main survivability assets of smallholders. When using it, they are capable of producing a surplus of 30% - 70% on top of their subsistence produce. (Sutcliffe et al., 2013).

Although this structure shows the overall Romanian trend in farming and succession processes, the social, legal and political frame for smallholders is also critical. (Lee et al. 2012). Two main points are socially problematic for the sustaining of smallholder farming in rural Romania. Firstly, the heritage of socialism results in social tensions even though it dates back to times of denunciation, forced cooperatives and compulsory charges. It still hinders farmers in socially interacting with each other and joining cooperatives, both of which would strengthen their bargaining power towards industrial farmers and potential buyers immensely. Secondly, missing papers on land ownership and traditional land rights hinders access to new land (von Oppenkowski et al., 2019). Another important factor when talking about farm succession is the inheritance law, which, if not differently stated in a last will or testament, grants ownership of the same parts of the land to the spouse and descendants of the passed owner. This leads to the further dissection of land and to huge financial burdens for the descendant, who wants to take over the farm and thus must pay out siblings or other relatives, as the interviews showed.

Politically, the stand of smallholders and their potential successors is hampered by several Romanian laws. Law 247/2005, called “renta viagera” is a lifetime annuity system, fostering the renting out and selling of land by smallholders to other farmers or bigger holdings. The owners annually get €100 for selling and €50 for renting out the land (Ghib, 2008). Moreover, law 37/2015 hampers smallholders’ economic activities as it contains a categorization of holdings, according to their economic size, and has a cut-off at a minimum of a €2,000 yearly economic output. Smallholders below that level are not eligible for Common Agricultural Policy (CAP) funding, nor do they have access to national funding but rather to payments per hectare and capita and they are treated as a part of the “Non-Observed/Non-Registered Economy” and thus, are perceived as undeclared workers (Redman, 2010). For example, a consequence in the agro-ecological schemes in unfavoured areas is that the smallholders get € 190 per hectare, instead of the € 500 they would get if they were a juridical person. To achieve the status of a juridical person, constant delivery to a buyer must be proved for three years.

Before joining the EU, the market access to informal markets was part of the societal and network embeddedness of the smallholders. Since then, the local authorities have tried to hamper the earlier established, institutionalized black market, to live up to EU-standards (von Oppenkowski et al., 2019; Roger, 2014). However, intrafamily farm succession is also nationally fostered by multiple young farmer programs, within the CAP, who are eligible to receive direct payments for investments on a farm of up to €40.000 and a bonus on other CAP measures of up to 25% more. Another law which is keeping land in smallholders’ ownership is the pre-emption right put down in law 17/2014. It gives local authorities, the ministry of agriculture and the ministry of defence the right to regulate land purchases by foreign people or companies. However, the pre-emption right is often passed by Romanian daughter firms or good connections to local authorities. During the interviews, many farmers and NGO representatives reported poor law enforcement and blamed it on Romania’s historical connection to corruption and informal structures.

## 6.5 Farm succession or abandonment – determinants and consequences

In smallholder communities the determinants for farm succession, or no succession, are manifold. While there are differences between cultural backgrounds and farm specifics, resources to be found on the farm must be valuable, rare, inimitable and non-substitutable to be attractive for family members as potential successors (Suess-Reyes & Futsch, 2016). The VRIN resources found in the interviews can be divided into economic, social and personal resources. The farm size and economic performance of the farm are important factors to heirs with regards to becoming farm successors. The better the business is run, the more probably a successor is found. For farmers of the older generation, this means that finding no successor inside their own family also represents the personal failure of his business (Farmer 03 & Farmer 07). Furthermore, farm diversification and innovativeness are decisive factors in farm succession. Farms, which were more diversified, especially in the CAP-subsidized agro-tourism sector, and were producing non-traditional goods, such as honey, certain processed fruit products, new-to-the-local-market cheeses and part-time farmed holdings, were more attractive than ones that fully specialized in traditional products and had only arable lands and pastures.

Moreover, human capital is as expected to be a very decisive factor because potential successors who left the countryside for higher education in a non-agricultural field were reported to not have an interest in farm succession. Conversely, whenever potential successors completed a degree in an agricultural-related field they took over their parents' business after some years because the willingness to grow the farm and try innovative practices, learned at agricultural colleges and universities, was one of their driving forces. Furthermore, when the education of potential successors was not affordable to parents the lack of missing alternatives also resulted in children who stayed on the agricultural holding and planned to continue working the land after their parents. The concerned interviewees often had an attitude of, "What else could I do?".

> *It is not about the prize, why I want to work the land and cannot sell it. It is more about the principle. You do not sell the land you got from your family. I lived here almost my entire life. […] I lived in Cluj [-Napoca] for my agronomy studies but I realized I have to get back here (Farmer 2).*

However, there are also many cases where potential successors are working in the bigger Romanian cities in completely different sectors, or abroad, and still support their parents' business by sending money home. Consequently, the farmland often has no intrafamily successor, as one of the main assets of family farming, human capital, is missing.

Another reason for farm succession is a certain financial and emotional pressure, which is felt by the younger generation. Subsidies as high as € 40,000 are accessible for young farmers when succession is guaranteed and the farm is registered as a business. For many semi-subsistence farmers and their families such an amount of money is perceived as a fortune. Talking to the future successors showed that they feel pride and pressure at the same time, as a result of both being the key to their parents' business survival and of having to carry the duality of "familiness ".

> *We had to become a juridical persona, and a company. So, we are officially not peasants anymore. […] Now, we can access another project for young farmers worth € 40.000 because of our daughter Maria. She is fitting the project. Because it is a project on farm succession. You must have a young farmer in the family plus a fixed contract for 3 – 5 years. You must be able to give receipts if you sell your main product, milk. So basically, we went to the funding agency and guaranteed, that Maria will take over the whole farm, we will leave it all to our daughter. And afterwards, we could enter the program. Basically, it is the contract plus secured succession and that's it. (Farmer 1)*

Intangible, social resources were emphasized even more by the interviewees. The strong bond with family and "home" was mentioned in almost every interview, either when young farmers took over the farm, or when older farmers explained why they hope that their children would come back to the farm, at some point, to take it over. This social and human capital of young successors is often fostered through them helping to run the business from early childhood. 'Help' extends from fieldwork to accessing new distribution channels through showing their parents web-based possibilities or helping them with accessing subsidies because their adaptability to digital media is higher than that of their parents. This exemplifies the usage of patient capital to try new, innovative business practices. However, such practices are only possible when financial investments

are comparably low and long working hours to pursue them are accepted by the family members.

> *We started five years ago [selling via facebook and our own website]. There was a family event and our daughters had some friends over and then they talked to each other and they started a business from that. Since then, we also started to join an agro-tourism association and have this business in the old farmhouse (Farmer 7).*

Many farmers also mentioned that they cannot keep up with the pace with which subsidy programs are offered and presented online, and that they find the application process rather complicated, partly due to technical problems in accessing the necessary online tools. This "*old system with schemes, designed to be used by young people" (agronomy consultant)* is another reason why many young prospective successors get involved at an early stage with their families' business as well as the most financially lucrative part of it – the subsidies.

### 6.5.1 Hurdles to farm succession

As statistics presented on the farming structure show, the degree of consolidation of land is increasing while the number of smallholders is decreasing over the last decades within Romania. The interviews showed that many smallholders themselves do not have a suitable successor, despite having children who could theoretically take over the farm. The reasons, therefore, are presented below.

Firstly, rising labour mobility within the EU; the availability of information on the quality of life; and, finally, the education of the younger generation; enables them to broaden their working life possibilities. Many prospective farm successors leave their parents' holding to work in countries with higher wages, leaving the others behind and sending money back while the family members staying on farm stick to subsistence farming. This often leads to female farmers staying behind on the farm as traditionally males are expected to earn larger amounts of money for the family. At the same time, farmers staying in the rural areas of the Carpathians want to improve their quality of life through a western style of living and consuming, which is informed and enabled by access to global information via the internet and television. This further results in potential

successors choosing to earn money rather than remaining in relative poverty on the subsistence farms of their parents. Often, descendants also do not see any future in farming, but rather in other sectors, as farming incomes are so low. For example, many young people decide to smuggle cigarettes from bordering Ukraine instead of working on the farm. This vicious circle leads to the big lack of one of the main VRIN resources for smallholder farming – human capital.

*Young people here in the area, they prefer smuggling cigarettes so that we cannot find any dayworkers helping us on the farm. And then they complain about the bad money we are earning with the farms. (Farmer 7).*

Another reason for no intra-family succession is that the main source of income for peasants is subsidies rather than product sales. This implies a bundle of consequences. Successors are renting out the land for the price, which equals the European and national subsidies and do not work the land anymore. In that way, they can either live off social support systems from the state and the rent of their land or work in another job while renting out the land and hindering others to buy the land. In these cases, the farmhouse and garden are still used, but the agricultural work is done by other farmers from the village or multinational farming companies (fig. 6).

Missing formal land rights also hinder farm succession. The land rights, as described before, are often only traditional rights and to change them high “fees”, which are mainly considered as corruption, must be paid to local authorities. The peasants normally neither have the financial means nor do they see the necessity of these rights as people around them already know the traditional land rights. However, when trying to acquire land one must make sure that the one who is selling it also has the right to transfer land rights, which means the seller must be captured in the land registry (fig. 6). With only about 30% of smallholder-owned land in Romania being in the cadastre, this missing network embeddedness confronts farmers, with the willingness to grow, with high financial barriers, as the following quote exemplifies:

*The 20 hectares are rented from roundabout 30 people and I want to consolidate it all. For the future, I want to buy it, but it turns out to be quite difficult because people don't want to sell it or it is way too expensive. But I want to grow bigger and bigger and this is the biggest hurdle, mainly because of missing papers (Farmer 7).*

Moreover, the access to subsidies is connected to land rights and law 37/2015 and therefore often difficult for smallholders to access because they are missing information, the legal status of a company and the right conditions to their land. Traditional forms of land use, pastures with woody elements and multiple other uses are not fostered by many because they cannot prove an economic output of over € 2,000 per year. This leads younger farmers, or even their parents, to quit farming and sell the land to people who clear their pastures and consolidate them. Land stewardship which is provided by the smallholders is consequently endangered.

*People [from our funding agency] wouldn't give us subsidies, if our pastures are not clean. Without woody vegetation, they mean. Basically, we must clear cut our pastures. Mainly we want to get rid of the wood because for this land we don't get any subsidies, so we and many others are selling our woodlands (Farmers 11 & 4).*

While financial means often cannot be generated via subsidies and sales, the future of the family farms should lie in growth, according to the younger successors. However, a fear of banks is still immense due to the heritage of the communist regime. Most farmers are influenced by stories of banks which took around 25% interest on small loans and this makes them hesitate to turn to financial institutes. At the same time, many farmers do not have the necessary securities to qualify for a loan, which hinders them from growing the farm and might even stop them from pursuing the farming business. Having to save up money or taking multiple little loans from within the family means that bigger investments in machinery or buildings cannot be made and land cannot be bought (fig. 6). However, as talking to three different bank representatives showed, banks were trying to lower the psychological barrier between the financial sector and smallholders and are approaching farmers in to create win-win situations through giving small loans for future

investments. The necessity of this approach is illustrated by the following exemplifying quotes:

*I have to go for a credit, but I don't trust banks. I want to take a loan for renting 50 hectares. But this project is going to take place after 2020. But the biggest problem in Romania is not money. It is the public authorities. (Farmer 9).*

*No banks. We will not collaborate with banks, because we are afraid of the high interests. We heard about 18-25%. So, we are just borrowing money from the family. Because there is no interest. Last time, we brought money to a bank to get some interest. And when we wanted to get it back, it was a little bit less than it used to be before because of a managing fee. (Farmer 5)*

Another point mentioned in multiple interviews are informal processes, which are socially, and network embedded. They are hampering small businesses with low means of investment, who are also paying relatively high corruption fees compared to bigger companies. There are cases in which the local authorities are not sticking to the informal bargains previously made, while bigger companies with more financial means to foster the informalities are profiting from these structures. This inequality is further supported by missing cooperatives, due to a post-socialist grudge between farmers which leads to growing mistrust within the next generation, together with a fear of growing the farm while no longer feeling embedded in the local society (fig. 6). It further hinders business development for peasants, who themselves do not have another possibility of growing due to missing infrastructure, legal papers and land rights as the following quote shows.

*I used all the subsidies to buy the land. It is re-investing. My farm is in the mountains and in the beginning, I could only get there by horse or walking. I had the roads built, and nobody, not the mayor or anybody else helped me. I proposed to pay the machinist and the guys doing the road, and the mayor should pay the diesel, but in the end, nobody did do it. So, I paid everything on my own. I used the subsidies of many years on that. (Farmer 10)*

Another crucial point that hinders farm succession is the land inheritance law. This law leads to a down-sizing of holdings as every heir receives the same amount of land and, in

turn, this results in a highly fragmented farm structure, scattered plots, a multitude of plots which are not used, unclear land rights and, finally, low productivity per land. As a result, heirs are forced to work the land as small family cooperations or to sell the land, either to others, or within the family. This goes along with huge bureaucratical burdens as well as expensive fees for papers and permissions, or with continued trusting in traditional land rights.

> *When my grandfather with 10 hectares of land died, my mother and uncle both inherited 5 ha of him, if I am now among 10 children, everything will split up evenly among us. Exactly, it is always, like this, not like in France, where the firstborn gets the land and has to compensate the rest. […] It does not make sense. I mean, this is why you see the small strips. Super good looking and good ecology, but nobody can do something with it. (Representative of EcoRuralis)*

The next section will illustrate what happens with the land when no intra-family successor is found. The reasoning behind these processes of renting, selling and abandoning will be evaluated through using the RBV and the concept of embeddedness, while also considering the post-socialist farming and political structure in the Romanian Carpathians.

### 6.5.2 Abandoned land

As per the statistics presented before, and the interviews with Romanian smallholders of whom *"90% do not have a succession plan" (Representative of a local NGO),* illustrates, the problem of having no intra-family successor is already present. Considering recent developments, parallels to earlier trends (in other post-socialist countries like Poland or the Czech Republic) point to a massive increase in the number of holdings without a successor over the next years. Thus, it is necessary to understand the socio-economic processes that take place after the decision of not working the land is made by the heirs.

Interviews with representatives of farmers' associations and individuals showed that there are generally three ways in which land is dealt with if it is no longer worked on by the former farmer. Whenever there is no successor from the family, the most common way of dealing with the land is renting it out to neighbours, friends, godsons, or other family members who are socially well embedded with the farming family. Often, this

happens at a price, which equals the received subsidies for the land, while the party who rents the land captures every additional value created on the land. For that to happen, several preconditions of territorial, societal and network embeddedness are needed: Firstly, the land should be neighbouring or very close to the land of the potential buyer, which, due to the compartmentalized farm structure is, not always the case. Secondly, the renters must have a good personal relationship with the former owning family as contracts are usually informal. Thirdly, the price and remoteness of the land play a big role, coupled with whether the potential renter has enough human capital to work the land. Renters tend to be the local people with the biggest holdings and the most financial capital. The interviews also showed that this process mostly happens in vibrant villages. The part which is inside the village borders (rom: intravilan) and contains most of the patient capital, such as the farmhouse and the land for vegetables and animal nursery, is, however kept in patriarchy. Thus, it is either re-naturalized, or used and cared for as a holiday retreat (fig.6).

> *Because you cannot really do fixed contracts, because the succession law in Romania is really stupid. If you have two sons, you have to split your land 50/50 so it gets smaller and smaller. And it is more like an agreement when you rent it, it does not have legal forms. It is informal gentleman agreement. (Farmer 13)*

The second option is selling the land. If there are already legal papers for the land, selling the land is further dependent on the social and network embeddedness of the buyer. Often, the land is sold to a friend, a member of the same cooperative or a neighbour, when it is important that the farming practices, used by the farming family before, are continued. The stewardship of land seems to have high emotional importance. At the same time, more and more investors from Romania and abroad are trying to consolidate large areas and can offer better prices to the former owners for the “extravilan” land. Although pre-emption rights protect local buyers in their pursuit of farm enlargement, as reported by multiple interviewees, corruption, in turn, regularly underruns the pre-emption rights. Thus, for landowners with traditional land rights, the situation is both a curse and a blessing. On the one hand, they cannot access many subsidies and have to sell their land at lower prices, as it is the usual case that buyers place importance on

official papers. On the other hand, the land is not as interesting to many multinational companies because they are not interested in buying up such small pieces of land. Some of their other reasons include the danger of a reputational loss, linked to land grabbing accusations and high transaction costs. Thus, biodiversity, land stewardship and traditional farming forms are preserved.

> *Translated it means that half of the land is really heavily legalized with new ownership documents and everything the other half just relies on traditional rights and inhabitant rights and stuff like this. Because many have not had the money to pay for their full rights to land or so. That gives social insecurity but also this gives on the other hand security, because if you don't have the legal rights to sell the land, you are still keeping it in peasant farming. (Representative of EcoRuralis)*

The problem of unclear land rights also leads to another factor influencing farm succession, which is that, especially in shrinking villages, the communal pastures, which are a cultural heritage and a crucial economic factor for many farmers to have enough hay for the winter, are not used by many farmers anymore. Communal pastures are sold to multinational companies or bigger local farmers who are repeatedly reported to bargain informally. In that way, farming enterprises can receive more subsidies for the land, even though they are not working it in many cases, however, former communal pastures are fenced so that nobody can use it. This leaves farmers, who need the communal pastures, helpless.

> *The rented part of land is so big because there is big problem. The rented land is for grazing grounds, the other is for haymaking for the winter. But the problem is that people rent and buy the land from the townhall, but they do not have any animals. They just take the subsidies. They have kind of agreements with the mayor. So, they get it and it is not possible to buy it or rent it for us. (Farmer 10).*

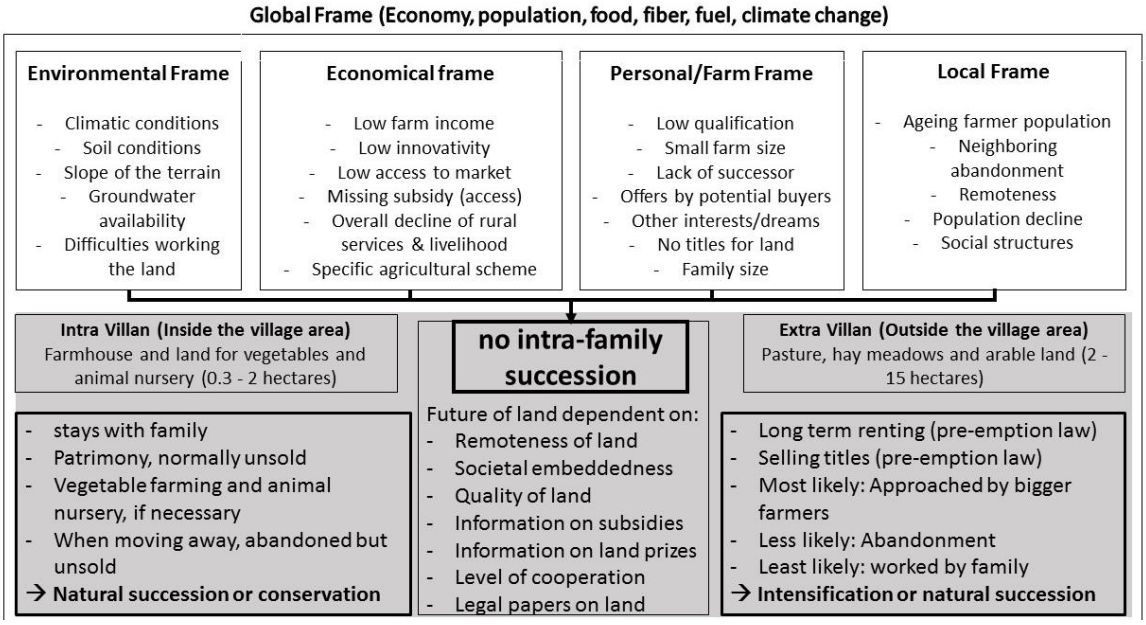
When land is sold, there are diverse groups of interested buyers. Firstly, land can be sold, as described above, to neighbours or friends who include it into their farms. Secondly, it can be sold to local authorities who own the communal pastures. In this case, it often ends up being privatized at a later stage, through investments of larger farming enterprises via informal channels. The third group of buyers is farming companies that

are trying to consolidate large areas of agricultural land to use industrialized farming methods on them. The fourth possibility is increasingly used as a result of agro-tourism, which is fostered by the state. Small parcels of land are sold to people who want to build a lodge or a cottage on it, to use as well as rent it out as a holiday destination. Another ascending practice is to sell land to young and educated new entries in the farming business who want to grow an agro-business. In these cases, buyers are often historically connected to the local countryside, for example through their grandparents. Regardless of whether the land is sold or rented by the farmers, they can use the "renta viagera", which allows them to use additional subsidies.

*Basically, I convinced them to rent it out. I pay them the rent but also let them get the subsidies for the land. People often don't really want to rent out their land because of social problems and tensions. Because of the subsidies and the rent and because everybody knows me here - I am godfather to 200 people - it is possible. Even though they cannot sell it legally. The prizes are bargaining, bargaining, bargaining. (Farmer 7)*

However, so far, the Carpathians, with their steep slopes and mountains, have very rarely been used as places of consolidation by global players in the agro-industry, because the land is barely workable with big machinery, land rights are unclear, and the land is too compartmentalized. Concluding, the farm succession in the Carpathians in Romania confirms results from existing case studies, while the enormous influence of informal structures should be considered, when using the resource-based view for analysing reasoning for farm succession. As figure 6 shows, the main influencing factors are found in the personal and farm-specific frame as well as the economic frame while the local and environmental situation is more important for a rather broad perspective.

*Figure 6: Influence factors and consequences of (no) farm succession*




*Author's own elaboration*

Once it becomes clear that no intra-family successor is working the land, the decision of what happens to the land is dependent on all three notions of embeddedness. The more socially, network and territorially embedded a farming business is, the more likely sustainable farm succession becomes, without biodiversity threatening consolidation and agro-industrial farming practices. Who is working the land, and with which practice, is finally also dependent on the vivacity of the village, as in vibrant villages, everybody knows which land is owned by whom and whether there are official papers on them, while in rather gloomy villages land is sold and the usual industrial buyers have to pay the cadastre. The "intravilan" land, however, stays in all interviewed cases within the family, even though it is not always used.

## 6.6 Conclusions and theoretical considerations

As the study has shown, smallholders in Romania experience several political and economic hurdles for their holdings to become attractive to potential successors. Informal land rights, hampered access to subsidies, financial incentives to quit farming and fostering of land consolidation are political problems which make farm succession unattractive for young heirs. At the same time, multiple values such as a romanticising of land; a strong societal embeddedness and binding cultural values; land stewardship;

territorial embeddedness; patient capital; and different subsidies are pushing young farmers towards succession. It seems that the Romanian and European policy on farm succession in smallholder farming does not have a clear consolidated goal. When, however, the goals of biodiversity and multiple other plans of sustainable development within the EU, are being fostered, a clear and strict fostering of smallholder succession should be one of the major political goals, because missing succession often results in consolidation of land, industrial farming and the clear-cutting of the unique silvo-pastoral systems, which are in place in the Carpathian mountains of Romania. This is the case, even though many multinational companies are not as interested in the land of the specific case study because of the aforementioned difficulties to consolidate and work the land.

The analysing framework of embeddedness was useful in to understand the necessary preconditions for certain processes that happen after the land is abandoned by a farming family. However, the framework does not cover several influence factors, such as gender, long-term planning around returning relatives, or keeping the land as a back-up plan. Still, there is not only a strong connection between the degree of embeddedness of a farming business but also of the heir and the bequeathing farmer. This case study implies that the factors of societal embeddedness seem to play the most significant role in farm succession but to generalize claims, more empirical and theoretical studies should be performed on this topic. Combining it with the theoretical framework of the RBV entails many theoretical overlaps, which indicates that these two approaches can provide a comprehensive framework on family farm succession. For a complex process such as farm succession (the passing of somebody's lifetime achievements) the broad applicability and adaptability of both approaches are very helpful, because the personal situation of every family farm, as well as the local, national and global situation for smallholders, has enormous influence on the decisions made. We, the authors, acknowledge that the limited number of cases within the specifically chosen research area must be supported by more theoretical and empirical work, concerning research question (2) about the fate of the land in case of missing successors. Researchers should especially address gender, age and religion questions, as these are all parameters that play a big role in rural societies. However, the study also showed that embeddedness is a helpful concept to add

on to the RBV and it underlined the results of many other studies dealing with the reasons for farm succession as presented by Suess-Reyes & Fuetsch (2016).

## 6.7 Literature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# 7 Discussion and conclusion

In this final section of the thesis, firstly, the answers to the research questions introduced in section 2.5, which have already been topic of detailed discussions in the last three sections, shall be precisely clarified. The next section will then discuss theoretical elaborations that can be drawn from the case study of the Romanian Carpathians and will mainly consist of a new, enhanced understanding of embeddedness. Finally, some concluding thoughts on smallholder farming and the limits of this thesis with ideas for further, fruitful research will conclude the section.

## 7.1 Answering the research questions

### Question (1): Which role does short food supply chains play in smallholder farming and how are they politically fostered in the case of integrated farming systems?

Short food supply chains (SFSC) are traditionally the primary way of selling products for smallholders in Romania. The nature of integrated farming systems results in a large variety of produced outputs from quickly perishable products such as dairy products, fruits, vegetables, and grains to durable products such as marmalade, honey, and liqueur. Moreover, non-food products with low to no perishability such as different qualities of wood, wool, and goods from ornamental resources are also produced on the farm. Workforce and time are just as limited as land, and mechanization peaks as an electric milking machine or an old tractor on most farms.

Consequently, production quantities are low. Another reason for low production quantities is that most smallholders resist specializing in a single good of production but instead keep their traditional subsistence systems, which are also designed to supply a certain variety for their own nutrition. Another factor which downsizes the amount of a single certain product sold is the missing societal embeddedness of cooperatives and associations. This is especially true for the older generation of farmers who were already farmers during the socialist regime of Ceausescu. Their perception of the idea of cooperatives and associations is distorted by the denunciation, compulsory charges and forced cooperatives from socialist times. The low amount of single certain products

emitted to the market, at a certain point in time, through the smallholders leads to a situation where SFSC are even more important than suggested in the ground-breaking work of Renting et al. (2003). Basically, it becomes the only way for the smallholders to resist the 'squeeze on agriculture' in global supply chains. The distribution channels for smallholders are then mainly local restaurants or public institutions, while most accessed distribution channels are roadside sales and farmer markets in nearby towns, even though they are increasingly legally disembedded. Customer supported agriculture schemes are still in a very early stage and thus, green boxes and other schemes are currently no viable possibility for the peasants.

While the traditionally grown silvo-pastoral systems themselves are very multifunctional, peasant farms in the Romanian Carpathians produce a very limited variety of products between themselves. That makes CSA schemes less attractive as every farmer offers the same products. This and the changing legal situation leave farmers with very limited access to distribution channels, which are characterized as SFSCs. As sections 4 and 5 showed, these distribution channels are subject to constant disembedding through new or newly enforced hygiene, subsidy, and taxation regulations. This policymaking results in some farmers choosing to specialize in single goods. The degree of possible specialization with only around 2-5 hectares of non-consolidated land (which often is in very rough slopes and not highly productive) means to cut off every product which is not meant to be consumed by the farming family itself, besides one. In most cases, this product was raw milk, as globally acting intermediate dairies have milk collection stations in the Carpathians and the transaction costs for switching to specialized raw milk production are rather low.

Further, the subsidies for animal farming are the highest in the disadvantaged and outlying areas in Romania, compared to arable farming. Orchards and foresting, on the other hand, take too much time to convert to. The farms that try to enter global production networks are under immense pressure concerning quality, quantity, and pricing for their products, as they usually end up in buyer-driven value chains. They essentially have no bargaining power towards the dairies and are even captured in informal structures. These consist of contracts, which cannot be fulfilled by the farmers,

as asked-for quantities are too high. The farmers, on the other hand, are dependent on the dairies to confirm the contracts as formally working and fulfilled by both sides because the farmers need the confirmation to get a legal business status and access further subsidies under the CAP. This combination, together with the low quantities of around 8 litres per day and per cow with the average farmer having 2-4 cows, leaves them disempowered in their position within the production network. The missing will to collaborate and associate with other smallholders in the same situation tips the balance in favour of the 'squeeze on agriculture'. Upgrading processes such as the production of cheeses, which could be sold via SFSCs, are hampered by hygiene regulation and a reluctance to change existing patterns of production. This barrier to changing production patterns, diversifying production and upgrading is also supported through missing means of investments, the cultural fear of banks and low education of many farmers, especially the older generation.

SFSCs are thus, as anticipated from former research on smallholders, a good way to maximize resilience, economic independence and profits for smallholders while, at the same time, conserving the traditional farming methods and production processes that are inherently positive for the idea of SRD. The disembedding of SFSC through new, "Europeanised" regulations and law enforcement are, however, hitting the peasants hard because they are too slow-paced in finding other distribution channels and this puts them into a situation in which informality gets normalized and bartering goods and other informal practices become a daily occurrence. To foster SFSCs and smallholder farming, which are promoted in all agricultural development plans of the EU that deals with sustainable rural development, the embedding of distribution channels must be reinforced on the network and territorial level, which could happen through cooperatives, associations, trademarks of a certain origin, or direct subsidies. The current processes, however, leads to the clear-cutting of silvo-pastoral, low- to no input systems in the Carpathian Mountains and, consequently, to a further squeeze on smallholder agriculture, while global actors are profiting, and environmental concerns are left behind. The fostering of new forms of SFSCs, such as CSA schemes might also reconnect consumers and producers and lead to a more conscious consumption of food as well as a

more distinct relation toward agriculture and nature with vibrant smallholder farming systems.

## Question (2): How important is the embeddedness of distribution channels for smallholders and what role does the embeddedness of informal channels play?

As already mentioned in the previous answer, the concept of embeddedness seems to be most important for the analysis of farmers' economic development through the lens of GPNs. This is especially true for the observed peasantry as Romanian smallholders do not have a lot of leeway because of their missing bargaining power toward processors, customers, and the surrounding institutions. Especially in post-socialist countries, such as Romania, the hampered cooperative and associated movements are leading to a huge mass of individually acting peasants, who cannot exercise cooperative power, nor can they influence the institutional power on their production networks without a collective voice. Collective power thereby is getting started through programs like Via Campesina and NGOs such as EcoRuralis that are trying to bundle the interests of smallholders with rights to land, seeds, and markets. These movements are, however, mainly used and accepted by younger, better-educated farmers while the majority of older farmers are stuck in old structures. Older farmers consider farmer markets, roadside sales and bartering goods as their main distribution channels and many younger farmers in outlying areas also do not have other possibilities than counting on these ways of sale.

This is where disembedding takes place. In Romania, over 40% of current raw milk processing happens on informal levels while 80.5% of the consumed milk is neither packed nor or sold at retailers. These traditionally developed distribution channels, which used to function apart from taxation and hygiene regulations, are the only source of income for many peasants but are recently falling away. Although the highly socially, territorial and network-embedded distribution channels were already considered grey market activities, they were tolerated by the police and legislators. However, since Romania joined the European Union, the informal and traditional market outlets are getting more and more disembedded. With changing regulations, which align with regulations of the European Union, the police is showing up at roadside sales and farmer

markets to check if the farmers are conducting legal businesses with selling permissions, and if the production of the products, especially dairy products, is according to European and Romanian hygiene regulations. This disembedding leads to a vicious circle for smallholders as farmer markets are currently more often than not supplied from wholesalers, due to low transaction costs and the low risk of booths being unrented. Furthermore, supermarkets and cash and carries have taken over almost all local city supplies, which lead to a further breakaway of possible distribution channels for smallholders and pushed them into informality, which was a legally accepted normality before.

Now, however, farmers are also, through hampered subsidy access, pushed towards joining global supply chains and delivering their main products to globally acting intermediaries. If they opt to do so, they are stuck in the squeeze on agriculture, if they opt to not do so, they are stuck in informality or having to quit the business. The development and planned access to new distribution channels seldomly happen because means of investment, as well as knowledge and education on these matters, are lacking. Thus, societal and territorial embeddedness help farmers to sustain their subsistence farming with bartering goods and informal sales, while the growth and rising attractiveness of farms for potential successors are disabled. To  is only possible in single cases where new distribution channels are established or when the embeddedness of single farmers is described by others as “more than a good relation to local authorities”.

Concluding, the disembedding of distribution channels for smallholders also means a hampering of smallholder activities, lower possibilities of economic resilience, growth and thus, worse chances of farm succession and higher chances for land consolidation, the establishment of corruptive structures, black market activities and industrial farming. In the sense of sustainable rural development, either a “de-informalization” of traditional distribution channels, a fostering of cooperative distribution channels or a degree of acceptance could foster smallholder farming. Disembedding peasants from their informal distribution channels through new laws and subsidy design must include thoughts on the informal parallel structures that might arise, especially when it comes to “undeclared and

unreported economic transactions", as in the case of Romanian smallholders in the Carpathians.

## Question (3): What are the main determinants of farm succession in post-socialist Romania and which consequences arise on a local level in case of missing farm succession?

The main determinants for farm succession in the Romanian Carpathians are the ones, which can be predicted from existing literature on farm succession (Suess-Reyes & Fuetsch, 2016). The use of the resource-based view showed that interviewed farmers needed VRIN resources for successful succession. The most important resource thereby was the so-called "familiness ", which is considered irreplaceable because it includes all resources which could come into consideration through the unique combination of family and business. "familiness" reaches from the deep territorial and societal embeddedness with their own farm and the countryside to the pressures felt in not wanting to disappoint their own parents. Moreover, the economic situation of farms, as well as the education of both parents and heirs, were decisive. Further, the vibrancy (or lack thereof) of the community in which the holdings were lying can lead to a domino effect of farms being overtaken, abandoned or sold. The non-local factors of the globalized food production system, such as missing distribution channels for smallholders, labour mobility within the European Union and information on possible other ways of life, lead to a more unlikely farm succession, which is also reflected by the statistics on peasant farming and land consolidation in Romania.

This trend of missing farm succession leads to the other answer on what happens to the land when no successor is found within their own family. Basically, there are three possible outcomes. (1), the land is abandoned, which mainly happens to land of societal or territorial disembedded holdings and their lands outside the village (extravilan). Then, the land is usually worked by farmers who are making informal deals with local authorities or the heirs who rent the land out for the price of the received subsidies, while the surplus earning goes to the ones who work the land. If the land is too far outlying, it might also be re-naturalized and the interviews showed that informal agreements with local or industrial stakeholders represent the majority of cases. (2), the land is sold to industrial

farming enterprises. This is only possible when there are official papers for the land and the small-scale relief of the land is not too steep and allows for highly mechanized agriculture and, thus, seldom the case in the Romanian Carpathians. (3), the last possibility is renting or buying of farmers' land when they are trying to grow their own business. For that process, social contacts, as well as the network embeddedness through good connections to financiers and local authorities, must be supplied. Further, the parcels of land should be neighbouring or at least close by. These farmers tend to be part of a young, well-educated farmer generation, who themselves are trying to grow their businesses into industrial farming while keeping the "intravilan" part of the holdings into peasant agriculture. These three possibilities end up in a reduction of traditional farming methods, smallholder agriculture and biodiverse, no- to low input integrated farming systems.

## 7.2 Building theory: Legal embeddedness as a new notion in GPN theory

Through all three empirical sections of this thesis (4, 5, and 6), the concept of embeddedness informs the socio-economic analysis of smallholder structures. While empirically working with the concept, as elaborated by GPN scientists (Bowen, 2010; Coe et al., 2004; Henderson et al., 2002; Hess, 2004; Hess & Coe, 2006; Rainnie et al., 2011; etc.), it became clear that legal embeddedness, in national states with working law enforcement, is so crucial for running a successful business that it needs its own place in the analysis of regional development using the GPN concept. Even though the dimension of governmental institutions is considered in the GPN framework, the processes of (dis-)embedding from the existing legal situation are not.

In the case study of dairy smallholders in section 4, the disembedding of informal distribution channels that have been embedded on all levels before is described. The example of smallholders in the Romanian dairy industry shows that the legal disembedding from traditionally grown structures leads to exclusion of the actors with the lowest bargaining power from global agri-food chains. This explicit "legal" notion of embeddedness has such a huge impact that all other levels of being well-embedded turn into burdens of over-embeddedness and inertia, instead of the theoretically excepted

benefits (Hess & Coe, 2006; Rainnie et al., 2011). This is especially fostered as law enforcement improves in Romania.

Through the high degrees of societal and territorial embeddedness, and consequently developed lock-in effects, many farmers become stuck within their traditionally functioning structure of distribution channels. However, farmer markets are no longer a legally embedded outlet and police are showing up at street vendors and roadside sales to check certificates, and production of processed dairy products must traceably happen according to EU regulations. While nothing changed at the smallholders' production – neither the animal husbandry, nor the hygiene at the processing level, nor the quality of products or targeted distribution channels – smallholders can no longer sell their products legally. Even though the networks around them are still in place, with roadside sales and farmer markets still being visited by many customers, legal disembedding pushes them into product-downgrading within their production. Instead of more complex, elaborated dairy products, they now sell raw milk to globally acting intermediaries and are joining global value chains. These buyer-driven chains, with globally acting dairies squeezing the prize for the primary producers, are the new legal option available to smallholders. If they resist this option, they are seen as "the non-registered and undeclared economy".

That means having to accept working in informal, undeclared conditions, which are not legal while not being able to access subsidies and suffering a reputational loss. This decision also goes along with societal and network disembedding as described in section 4 and might also end up in a downgrade of social status. Even though only empirically tested in the Romanian smallholder agri-food network, the push of businesses toward informality through new regulations can be expected to have an enormous impact on business structures. Thus, the notion of legal embeddedness should be a new category of embeddedness, added to the categories of "societal", "network", and "territorial" as proposed earlier by Henderson et al., (2002) and Hess & Coe (2006).

Through the lens of the concept of SFSC (Renting et al., 2003; van der Ploeg, 2010), the legal disembedding of short food supply chains, via roadside sales and farmer markets as described in section 5, leads to similar theoretical conclusions as the dairy example of

section 4. The whole structure of existing SFSCs from integrated peasant farming systems is legally disembedded through the Romanian state as a result of the clash of traditionally grown, informal and legally accepted grey market structures around the smallholder economy and the willingness to live up to EU regulations, which concern hygiene in agri-food chains and taxation and black market combatting. The results are changes in the land use patterns, with smallholders clearing their pastures to access better-paying subsidies and joining global supply chains through specialized production. However, their bargaining power toward their buyers is very limited and ecological consequences are contradicting the idea of sustainable rural development. Other forms of embeddedness, which are well established for smallholders in the rural areas of the Romanian Carpathians, are not countering the impact of the legal disembedding because collective bargaining power is very low, due to missing cooperatives and farmers' associations.

Using the empirically grounded information from these two case studies, the need for a new notion of "legal embeddedness" becomes clear. In a consequence, the best situation of legal embedding is when businesses or structures are fostered by legal institutions, be it through direct or indirect subsidies or fostering legislation. The mediocre situation might be described as legally acceptable, which might have been the case for smallholders' distribution channels before accessing the European Union and adapting legal frameworks in the direction of its regulations. Legal disembeddedness, however, must be understood as the situation of a businesses, operating in informal and illegal zones, but it must not be confused with illegal businesses. It is crucial to understand that disembedding is a process which must happen before being legally disembedded.

Thus, legal disembedding is a process of illegalization of business practices that have been legal before. This legal disembedding in the complex production networks of today's globalized economy does not only concern a single business practice but the whole connected production network. This is especially the case, when, as in Romania, millions of stakeholders are hit directly by the change of legal institutions. A similar impact can be expected for legal embedding, which can be understood as the legalization of practices that were illegal before and changed the whole production network. The pace and communication of the process of (dis-)embedding, as well as the preparation of affected

stakeholders, might, however, influence their resilience. As section 4 and 6 showed, the inclusion of legal disembedding also requires a stronger consideration of informal practices, distribution channels, and agreements, when analysing smallholder production networks through the GPN lens.

## 7.3 Limits of the study and further research

Even though this study led to several interesting and relevant results, concerning the theoretical connotation of the concept of embeddedness and its relevance for smallholder farming in the European context of sustainable rural development, there are several limits which should be acknowledged. Firstly, the case study approach represents information gathered from interviews with multiple stakeholders from the production system and the found results are backed by official statistical data from multiple sources. However, not every relevant stakeholder group could be approached, which would have broadened the view on the involved dairies, local authorities, and successors who decided to opt-out of farming. Another limit is represented by the low accessibility of quantitative data on single smallholder farms as most smallholders are not doing accounting of goods and money, and others would not give insights into their books. A similar problem is linked to informal structures as those who are involved in these structures claim that they are non-existent, and those who are not involved point out the negative effects of informalities. Addressing these topics was often blocked in interviews with certain stakeholder groups. The untrustworthy behaviour of some of the interviewees and many non-interviewed stakeholders partly spoke for itself.

Thus, using methods such as mystery calls, meetings, and involving informal and globally acting players into the research could inform the understanding of smallholder production networks enormously. Furthermore, the newly described notions of embeddedness, especially the legal disembedding is a necessary level of analysis for countries that are joining new regulation catalogues, such as the ones of the European Union or other supranational institutions. This does not stop at smallholders, but should include all economic activities which are historically and traditionally, as well as in practice, close to informal structures and distribution channels. To theoretically broaden

the idea of legal embeddedness, case studies of legal embedding and disembedding might further inform the concept of other sectors than the smallholder economy.

# 8 Bibliography

The bibliographies of sections 4, 5, and 6 are separately attached at the end of these sections, following the guidelines of the journals they are published in or reviewed at.

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# 9 Appendix

## Appendix 1a) Basic version of the interview guideline for farmers

**Basic Information**

Which products are produced? Are integrated products produced? Which?

How about value generation → Where does it take place → refining of the basic products/selling the basic products?

How much of them of the turnover/profit (%/absolute)?

Size of the farmland? Size of the turnover/profit?

How many workers; How are they paid? How much mechanization?

Is the farmer the owner? Does he work for self-supply or for the market or for both?

Which are the distribution channels (markets, fairs, contracts)?

How do they look like? (long/short time, fixed/flexible prices, trust-based, price-based?

Are there suppliers? Woodland contractors/machinery maintenance etc.?

Who are competitors? On which scale are they operating? (super markets, other peasants)

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**Integrated Farming**

What are residuals/wastes which are used/unused?

Which are the benefits of the trees on your farm? Which would disappear for big monocultures?

How much do they contribute to your business? Do you use them yourself? For what? What do you save by using it?

Do you know of other farmers using their residuals for example for fuel/liqueur/bedding etc.?

Have these potentials been used before?

Why/Why not?

Are there thoughts about going into bio-energy?

---

**Subsidies, finance and political embeddedness**

Which are subsidies you can/do use?

How would you like subsidies to be in place?

Do you feel threatened by foreign/national big investors?

How do you think about the prices they are offering?

Did you ever (want to) buy land?

Did you ever (want to) buy bigger machinery? How is the financing of that possible?

Do you wish for an easier way to finance investments?

Did the removal of the restrictions of foreign investments influence you from 2014 on?

## Appendix 1b): Basic version of the interview guideline for processors

**Basic Information**

What are the main products?

Turnover/Size/Employees?

Who are your suppliers? How many are there?

How do these supplies work?

- Who is dictating the price? Can choose the supply or do you have to apply for?
- Long-term/Short-term/Trust-based relations
- Is there fear of forward/backward integration?

Who are your customers? How many are there? How do these business relationships work?

Who are your main competitors?

---

**Subsidies and political embeddedness**

Which are subsidies you can/do use? Do you benefit of agricultural subsidies?

How would you like subsidies to be in place?

Do you feel threatened by foreign/national big investors?

Did you ever (want to) buy land?

Do you wish for an easier way to finance investments?

Did the removal of the restrictions of foreign investments influence you from 2014 on?

What does the consolidation of land to your business model?

Standards which are worked with? (Organic-, Demeter-, FAO-, ISO- … environmental, societal, quality, safety)

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## Appendix 1c) Basic version of the interview guideline for politicians

**Basic information**

Which exactly is your department?

On which level do you operate? (local/regional/national)

**Integrated Farming**

What does regional/national politics for integrated farming?

Is there awareness of the chances? (why/why not?)

Is bio-energy a bigger topic in agro-politics?

Which are subsidies/programs in place to enhance agricultural productivity?

Are there any plans to foster that?

How are they perceived?

**Land Grabbing**

What does regional/national politics against land grabbing?

Why is the model of opening a Romanian company and acquiring land like that is not prohibited?

How did things change in 2014?

Do you think, that livelihood in villages will be affected?

Do you think, that environmental concerns will be affected?

Which are the advantages of foreign investors?

Are there any plans to deal with that?

Are there transparency measures concerning land grabbing? How do you get reliable data?

Has the carbon credit market affected the acquisition of land?

## Appendix 1d) Version two of interview guideline for farmers

**Basic Information**

Which products are produced? Are integrated products produced? Which?

How about value generation → Where does it take place → refining of the basic products/selling the basic products?

How much of them of the turnover/profit (%/absolute)?

Size of the farmland? Size of the turnover/profit?

How many workers; How are they paid? How much mechanization?

Is the farmer the owner? Does he work for self-supply or for the market or for both?

What do you think about the common land?

Which are the distribution channels (markets, fairs, contracts)?

How do they look like? (long/short time, fixed/flexible prices, trust-based, price-based?

Are there suppliers? Woodland contractors/machinery maintenance etc.?

Which are the main customers?

Who are competitors? On which scale are they operating? (super markets, other peasants)

Standards which are worked with? (Organic-, Demeter-, FAO-, ISO- … environmental, societal, quality, safety)

---

**Integrated Farming**

What kind of trees are on the farm? How many of them? Are they used?

What are residuals/wastes which are used/unused?

Which are the benefits of the trees on your farm? Which would disappear for big monocultures?

How much do they contribute to your business? Do you use them yourself? For what? What do you save by using it?

Do you know of other farmers using their residuals for example for fuel/liqueur/bedding etc.?

Have these potentials been used before?

Why/Why not?

Are there thoughts about going into bio-energy? Do you know of any subsidies for producing it?

---

**Subsidies, finance and political embeddedness**

Which are subsidies you can/do use?

How would you like subsidies to be in place?

Do you feel threatened by foreign/national big investors?

How do you think about the prices they are offering?

Did you ever (want to) buy land?

## Appendix 1e) Version two of the interview guideline for processors

**Basic Information**

What are the main products?

Turnover/Size/Employees?

Who are your suppliers? How many are there?

How do these supplies work?

- Who is dictating the price? Can choose the supply or do you have to apply for?
- Long-term/Short-term/Trust-based relations
- Is there fear of forward/backward integration?

Who are your customers? How many are there? How do these business relationships work?

Who are your main competitors?

---

**Subsidies and political embeddedness**

Which are subsidies you can/do use? Do you benefit of agricultural subsidies?

How would you like subsidies to be in place?

Do you feel threatened by foreign/national big investors?

Did you ever (want to) buy land?

Do you wish for an easier way to finance investments?

Did the removal of the restrictions of foreign investments influence you from 2014 on?

What does the consolidation of land to your business model?

Standards which are worked with? (Organic-, Demeter-, FAO-, ISO- … environmental, societal, quality, safety)

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## Appendix 1f) Version two of the interview guideline for politicians

**Basic information**

Which exactly is your department?

On which level do you operate? (local/regional/national)

**Integrated Farming**

What does regional/national politics for integrated farming?

Is there awareness of the chances? (why/why not?)

Is bio-energy a bigger topic in agriculture politics?

Which are subsidies/programs in place to enhance agricultural productivity?

Are there any plans to foster that?

How are they perceived?

**Land Grabbing**

What does regional/national politics against land grabbing?

Which are the main drivers of buying land for big investors? (Tourism/Agriculture/else?)

Why is the model of opening a Romanian company and acquiring land like that is not prohibited?

How did things change in 2014?

Do you think, that livelihood in villages will be affected?

Do you think, that environmental concerns will be affected?

Which are the advantages of foreign investors?

Are there any plans to deal with that?

Are there transparency measures concerning land grabbing? How do you get reliable data?

Has the carbon credit market affected the acquisition of land?

**Financing**

Which would you see as the main burden for farmers to get access to subsidies or permission?

Why do you have to get an extra permission to log/fell trees? Are there more simple solutions?

Do you think, that bureaucracy is a burden for farmers?

Do you think, financing of small farmers would help develop a better indigenous development of agriculture?

## Appendix 1g) Basic version of the interview guideline for investors

They lease the land out to a farming company → Tenant farmers

Introduction:

Sustain FARM – EU Project on sustainability in Agriculture, mainly integrated farming also assessing structural trends and problems for future planning

Introduce me: PhD Student- Economic Geographer – Background of Value Chain Analysis of Farming in Romania – Thread of Integration

Recording, Anonymization

General Questions:

Could you describe your business model?

Investor gives money in form of a loan to Holdco and has a contract with CBC.

With that money as a loan, Property Co. invests in land

Which are your main partners?

From which size on do you buy land to consolidate it?

Where are your main customers from?

What kind of customers are they?

How is the money of 10 Mio € minimum investment averagely used?

- Machinery
- Land
- Labor
- Else?

What are the main products your customers are producing by now?

Which are the main customers of the farming companies?

To which countries does the money go?

Which are your main competitors? Also firms like Racova or other firms with similar business models or even more the existing small scale agriculture?

In terms of value creation, enhancement and capture? Who captures in a well working project of average performance most of the value?

Are you also buying woodlands?

Which are the most interesting areas in Romania to invest at the moment? How will it develop? How about Cluj area and Transylvania?

Which are the most interesting distribution channels in Transylvania/Romania?

## Barriers and Subsidies

## Appendix 1h) Version three of the interview guideline for farmers

**Basic Information**

Which products are produced? Are integrated products produced? Which?

How about value generation → Where does it take place → refining of the basic products/selling the basic products?

How much of them of the turnover/profit (%/absolute)?

Size of the farmland? Size of the turnover/profit?

How many workers; How are they paid? How much mechanization?

Is the farmer the owner? Does he work for self-supply or for the market or for both?

What do you think about the common land?

Which are the distribution channels (markets, fairs, contracts)?

How do they look like? (long/short time, fixed/flexible prices, trust-based, price-based?

Are there suppliers? Woodland contractors/machinery maintenance etc.?

Which are the main customers?

Who are competitors? On which scale are they operating? (super markets, other peasants)

Standards which are worked with? (Organic-, Demeter-, FAO-, ISO- … environmental, societal, quality, safety)

---

**Integrated Farming**

What kind of trees are on the farm? How many of them? Are they used?

What are residuals/wastes which are used/unused?

Which are the benefits of the trees on your farm? Which would disappear for big monocultures?

How much do they contribute to your business? Do you use them yourself? For what? What do you save by using it?

Do you know of other farmers using their residuals for example for fuel/liqueur/bedding etc.?

Have these potentials been used before?

Why/Why not?

Are there thoughts about going into bio-energy? Do you know of any subsidies for producing it?

---

**Subsidies, finance and political embeddedness**

Which are subsidies you can/do use?

How would you like subsidies to be in place?

Do you feel threatened by foreign/national big investors?

How do you think about the prices they are offering?

Did you ever (want to) buy land?

## Appendix 1i) Version three of the interview guideline for processors

**Basic Information**

What are the main products?

Turnover/Size/Employees?

Who are your suppliers? How many are there?

How do these supplies work?

- Who is dictating the price? Can choose the supply or do you have to apply for?
- Long-term/Short-term/Trust-based relations
- Is there fear of forward/backward integration?

Who are your customers? How many are there? How do these business relationships work?

Who are your main competitors?

---

**Subsidies and political embeddedness**

Which are subsidies you can/do use? Do you benefit of agricultural subsidies?

How would you like subsidies to be in place?

Do you feel threatened by foreign/national big investors?

Did you ever (want to) buy land?

Do you wish for an easier way to finance investments?

Did the removal of the restrictions of foreign investments influence you from 2014 on?

What does the consolidation of land to your business model?

Standards which are worked with? (Organic-, Demeter-, FAO-, ISO- … environmental, societal, quality, safety)

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## Appendix 1j) Version three of the interview guideline for politicians

**Basic information**

Which exactly is your department?

On which level do you operate? (local/regional/national)

**Integrated Farming**

What does regional/national politics for integrated farming?

Is there awareness of the chances? (why/why not?)

Is bio-energy a bigger topic in agriculture politics?

Which are subsidies/programs in place to enhance agricultural productivity?

Are there any plans to foster that?

How are they perceived?

**Land Grabbing**

What does regional/national politics against land grabbing?

- Special taxes? Land inquiry up to 100 ha? Special Construction Tax?

Which are the main drivers of buying land for big investors? (Tourism/Agriculture/else?)

Why is the model of opening a Romanian company and acquiring land like that is not prohibited?

How did things change in 2014?

Do you think, that livelihood in villages will be affected?

Do you think, that environmental concerns will be affected?

Which are the advantages of foreign investors?

Are there any plans to deal with that?

Are there transparency measures concerning land grabbing? How do you get reliable data?

Has the carbon credit market affected the acquisition of land?

**Financing**

Which would you see as the main burden for farmers to get access to subsidies or permission?

Why do you have to get an extra permission to log/fell trees? Are there more simple solutions?

Do you think, that bureaucracy is a burden for farmers?

Do you think, financing of small farmers would help develop a better indigenous development of agriculture?

What reasoning has the taxation of subsidies?

## Appendix 2: Complete list of interviewees

| Code | Name | Organization/ Corporation/ Institution/ Interviewees | Duration of the interview | Date | Place |
|---|---|---|---|---|---|
| Farmer 1 | | A family farm with ca. 2 ha; with three generations of women, the men are working abroad or in Bucharest | 00:51:37 (recorded) | 22.05.17 | Petrova, Maramureș |
| Farmer 2 | | A young smallholder with a university education who is the head of a local, barely working cooperative | 00:58:32 (recorded) | 16.05.17 | Mărișel, Cluj County |
| Farmer 3 | | A smallholder couple from a family farm in a very outlying area with no- to low infrastructure | 01:14:49 (recorded) | 24.05.17 | Valley near Petrova, Maramureș |
| Farmer 4 | | An old smallholder couple, with a successor, from a small, animal specialized holding | 00:40:19 (recorded) | 16.05.17 | Mărișel, Cluj County |
| Farmer 5 | | A smallholder couple who offers a small pension for tourist to stay in | 00:36:19 (recorded) | 16.05.17 | Mărișel, Cluj County |
| Farmer 6 | | A mayor, who is smallholder with a focus on beekeeping that started as a politically | 01:25:05 (recorded) | 29.05.17 | Small village near Dej, Cluj County |

| | | | | | |
|---|---|---|---|---|---|
| | | motivated diversification into beekeeping for the region | | | |
| Farmer 7 | | An old farming couple who started as smallholders but grew the farm through consolidation to around 80 cows; they still use traditional farming methods; own a legal cheese production; and are godfather to over 200 villagers | 02:34:17 (recorded)<br><br>02:50:00 (notes) | 22.-23.05.17<br><br>11.03.18 | Petrova, Maramureș<br><br>Petrova, Maramureș |
| Farmer 8 | | A young smallholder couple, both with university educations, who are successors and returned to the countryside from Cluj-Napoca | 01:44:02 (recorded) | 24.05.17 | Village near Baia Mare, Maramureș |
| Farmer 9 | | A young smallholder with a completely renewed concept of integrated farming, who focusses on processed fruits and is head of a newly founded farmer association | 00:46:04 (recorded) | 15.05.17 | Mărișel, Cluj County |

| | | | | | |
|---|---|---|---|---|---|
| Farmer 10 | | A smallholder who struggles immensely with informal structures and does not want to share his name because of fears related to "mafia-like structures" | 00:40:51 (recorded) | 23.05.17 | Village near Borșa, Maramureș |
| Farmer 11 | | A farmer lady with a traditional holding, without successors | 00:55:17 (recorded) | 16.05.17 | Mărișel, Cluj County |
| Farmer 12 | | A farmer and veterinarian of Ada Prod Com, a larger farming enterprise that specializes in dairy and meat production | 01:10:32 (recorded) | 29.05.17 | Viișoara, Cluj County |
| Farmer 13 & former forester | | A former representative of a national forestry agency and a part-time farmer in meat production | 00:55:29 (recorded) | 23.05.17 | Vișeu de Sus, Maramureș |
| Pellet & briquette producer | | An enterprise that produces wood, fuel, and which has employees who clear and clean the pastures of smallholders for material | 01:51:18 (recorded) | 29.05.17 | Suburb of Cluj-Napoca |
| Wood processor | | An enterprise with 5 employees, who produce wood for | 00:44:45 (recorded) | 24.05.17 | Suburb of Cluj-Napoca |

| | | | | | |
|---|---|---|---|---|---|
| | | furniture, burning and construction and collaborate with smallholders | | | |
| Agronomy consultant | | A representative of the agronomy consultancy CCFT and an expert on smallholder agriculture, CAP and Romanian subsidies | 00:49:15 (recorded) | 25.05.17 | Cluj-Napoca |
| Representative of EcoRuralis | | A representative of EcoRuralis, a Romanian NGO on peasant rights | 01:02:12 (recorded)<br>45:20 (notes) | 25.05.17<br>11.01.19 | Cluj-Napoca<br>Skype |
| Representative of a local NGO and researcher | | A representative of Valori Superioare, an NGO working fro sustainable foresting and sustained, resilient rural livelihoods in the Carpathians; Agronomist, at USAMV Cluj | 02:40:13 (notes)<br>Many short questions (notes) | 20.05.17<br>10.03.18 several times in 18/19 | Cluj-Napoca<br>Baia Mare<br>E-Mail<br>Skype |
| Researcher and regional politician | | A technical University Cluj (professor) who is the general director of the General division for Agriculture and Food – Cluj | 01:08:06 (recorded) | 25.05.17 | Cluj-Napoca |

| | | | | | |
|---|---|---|---|---|---|
| Researcher and local politician | | A professor at USAMV Cluj and a local politician for forestry regulation | 00:35:00 (notes) | 13.05.17 | Cluj-Napoca |
| Bank 01 | | A representative of Banca Comerciala Romana | 00:25:00 (notes) | 29.05.17 | Cluj-Napoca |
| Bank 02 | | A representative of Banca Transilvania | 00:30:00 (notes) | 29.05.17 | Cluj-Napoca |
| Bank 03 | | A representative of Banca Unicredit | 00:10:00 (notes) | 29.05.17 | Cluj-Napoca |
| Researcher & smallholder activist | | A researcher at Cluj University & voluntary subsidy and agronomy consultant around Cluj-Napoca for smallholders | 02:20:00 (notes) | 16.05.17 | Cluj-Napoca |
| Industrial wood processor | | A representative of Holz RG, an Austrian company that is accused of forest grabbing in Romania | 00:50:00 (notes) | 23.05.17 | Vișeu de Sus, Maramureș |
| National Park | | A representative of the National Park of Maramureș, in which traditional holdings also exist | 00:25:00 (notes) | 23.05.17 | Vișeu de Sus, Maramureș |